Multilingual Version

English

中文

日本語

Français

Deutsch

Español

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NETWORK VIDEO RECORDER

SERIES

User Manual

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Please read instructions thoroughly before operation and retain it for future reference.

Online manual download: www.surveillance-download.com/user/h800.swf

IMPORTANT SAFEGUARD

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly “lead-free” and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

This apparatus is manufactured to comply with the radio interference requirements.

Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital service, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user’s authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- All external cables connecting to this basic unit must be shielded.
  For cables connecting to PCMCIA cards, see the option manual or installation instructions.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device mat not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

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We are pleased to provide our modifications to the Linux Kernel, as well as a few new commands, and some tools to get you into the code. The codes are provided on the FTP site, and please download them from the following site or you can refer to your distributor:

http://download.dvrtw.com.tw/GPL/076D_Series/arm-linux-2.6.tar.gz

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TABLE OF CONTENTS

1. HARDWARE OVERVIEW 1
   1.1 Front Panel 1
   1.2 Rear Panel 1
2. CONNECTION 2
   2.1 Hard disk installation 2
   2.2 Camera IP Configurations by LAN 4
      2.2.1 AUTO Mode 4
      2.2.2 Static / DHCP Mode 6
   2.3 Manual Connection Setup 7
3. NETWORK CONFIGURATIONS 8
   3.1 Understand How Your Laptop / Computer Connect to Internet 8
   3.2 Router + Modem 8
   3.3 Modem / Hub + Modem 10
4. USER INTERFACE 12
   4.1 Local 12
      4.1.1 NVR Status 12
      4.1.2 Channel Status 12
      4.1.3 Quick Operation 13
      4.1.4 Main Menu 13
      4.1.5 Playback Panel 13
   4.2 Remote 14
5. FREQUENTLY-USED FUNCTIONS 15
   5.1 Key Lock / Unlock 15
   5.2 Channel Selection 15
   5.3 IP Device Search 16
   5.4 User Level Creation 17
   5.5 PTZ Control (1CH Mode) 18
   5.6 Event Search 19
   5.7 Video Backup 19
   5.8 Video Playback on PC 20
      5.8.1 Convert the file format to AVI 20
6. QUICK OPERATION 21
   6.1 Power Switch 21
   6.2 Channel Selection 21
   6.3 PTZ Control (All CH mode) 22
   6.4 Digital Zoom 22
   6.5 IP Device Search 23
7. MAIN MENU 24
   7.1 QUICK START 24
      7.1.1 GENERAL 24
      7.1.2 TIME SETUP 25
      7.1.3 SIMULATION 26
   7.2 SYSTEM 26
      7.2.1 ACCOUNT 26
      7.2.2 TOOLS 27
      7.2.3 SYSTEM INFO 27
      7.2.4 BACKUP DATA (USB) 28
      7.2.5 BACKUP LOG (USB) 29
   7.3 EVENT INFORMATION 30
      7.3.1 QUICK SEARCH 30
      7.3.2 EVENT SEARCH 30
      7.3.3 HDD INFO 31
      7.3.4 EVENT LOG 31

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7.4 ADVANCED CONFIG 31
7.4.1 CONNECTION 31
7.4.2 CAMERA 32
7.4.3 DETECTION 33
7.4.4 ALERT 34
7.4.5 NETWORK 35
7.4.6 DISPLAY 36
7.4.7 RECORD 36
7.4.8 NOTIFY 37
7.5 SCHEDULE SETTING 40
7.5.1 RECORD 40
7.5.2 EVENT 40
APPENDIX 1 MOBILE SURVEILLANCE VIA EAGLEEYES 41
A1.1 Prerequisites 41
A1.2 Where to download 41
A1.3 Enable Push Video 42
A1.3.1 From iPhone / iPad 42
A1.3.2 From Android Mobile Device 43
APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST 44
APPENDIX 3 COMPATIBLE HARD DISK LIST 45
APPENDIX 4 BATTERY REPLACEMENT 47
APPENDIX 5 SPECIFICATIONS 48
APPENDIX 6 RECORDING TIME TABLE 49

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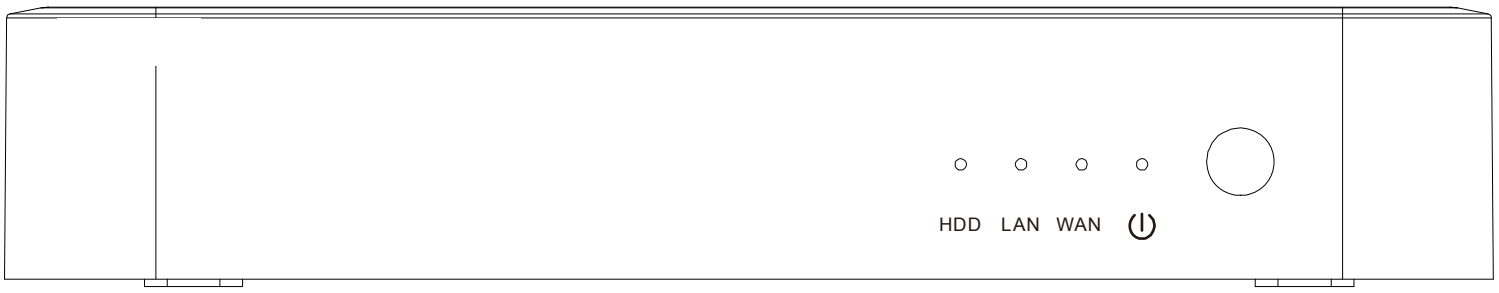
1. HARDWARE OVERVIEW

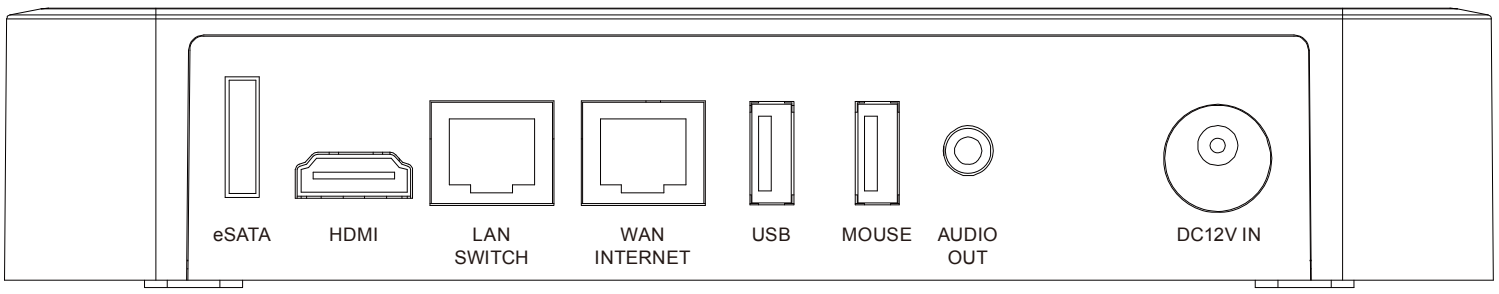
1.1 Front Panel



LED indicators

⏻	The NVR is power-supplied.
WAN	The NVR is connected to Internet.
LAN	The NVR is connected to LAN.
HDD	Up to one hard disk is installed in the NVR and connected well.

1.2 Rear Panel



1) eSATA

This port is used to connect a storage device supporting eSATA interface; for instance, an external hard disk or a disk array.

Note: Please purchase a disk array supporting Linux system to ensure you NVR work properly.

2) HDMI

This port is used to connect the monitor, which supports high definition video output interface.

Note: Direct connection to the monitor, which supports VGA or composite interface, is not supported. Please prepare a converter in advance.

3) LAN

This port is used to connect your NVR to IP cameras locally.

4) WAN

This port is used to connect your NVR to Internet via a RJ45 network cable.

5) USB

Insert a compatible USB flash drive for video backup.

Note: For the compatible list of USB flash drives, please refer to "APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST" at page 44.

6) MOUSE

Insert a mouse for function operation.

7) AUDIO OUT

Connect to a speaker.

8) DC12V IN

Connect the NVR to power with the regulated adapter.

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2. CONNECTION

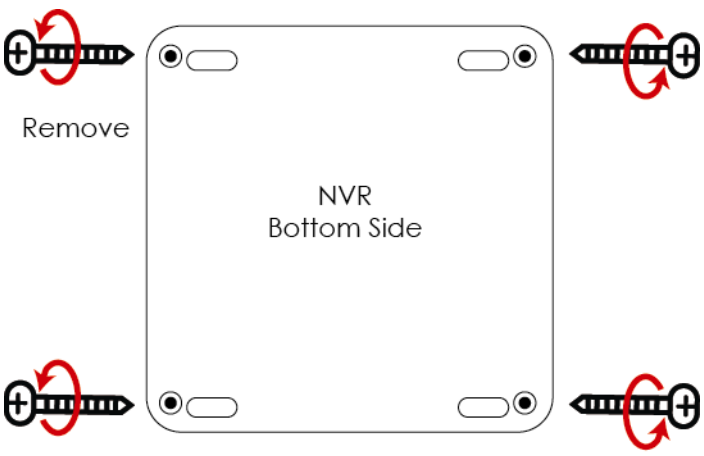
2.1 Hard disk installation

This NVR supports both 2.5” and 3.5” hard disk drives based on your demands. Please follow the instructions below to install a hard disk in the NVR.

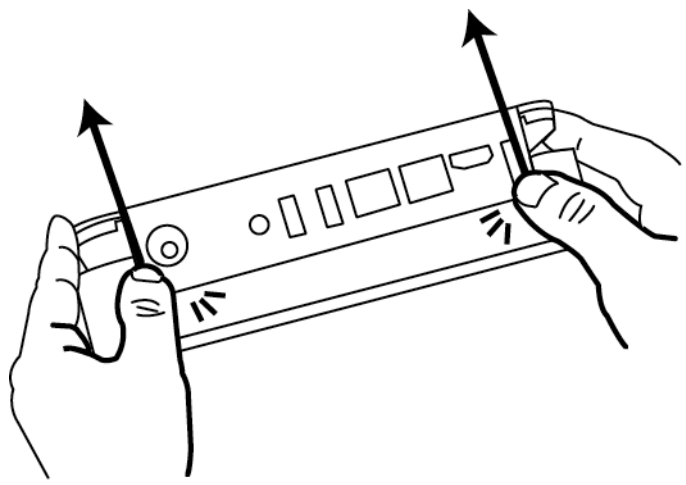
To install a 3.5” hard disk

Step1: Turn the NVR bottom side facing you, and remove the four screws.

Step2: Turn the NVR rear panel facing you, and slightly push the case upward to remove it, as shown below.



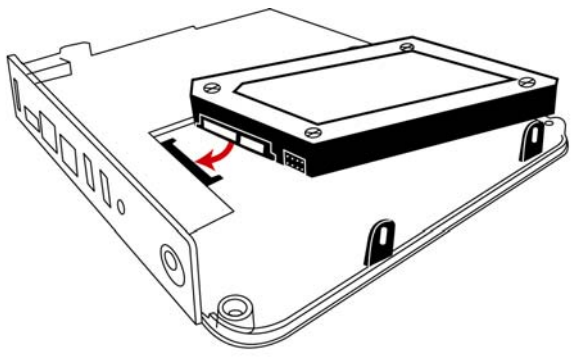
1. Remove case screws.



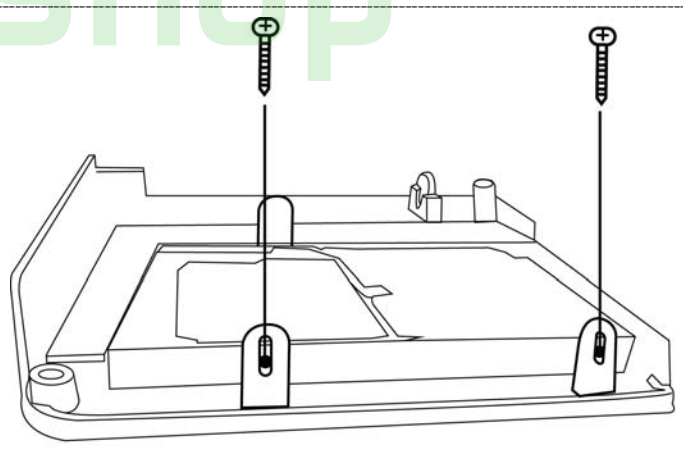
2. Push to remove the upper cover.

Step3: With the PCB side facing down, connect your hard disk to the NVR as shown below.

Step4: To fix the hard disk, please fasten it to the bracket with the supplied screws.



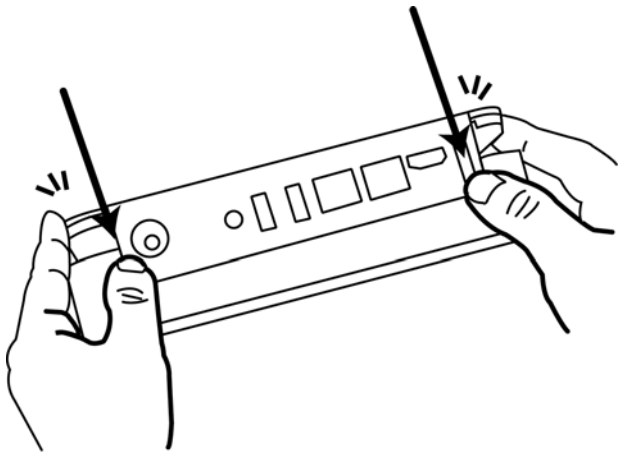
3. Connect your hard disk to the NVR as shown above.



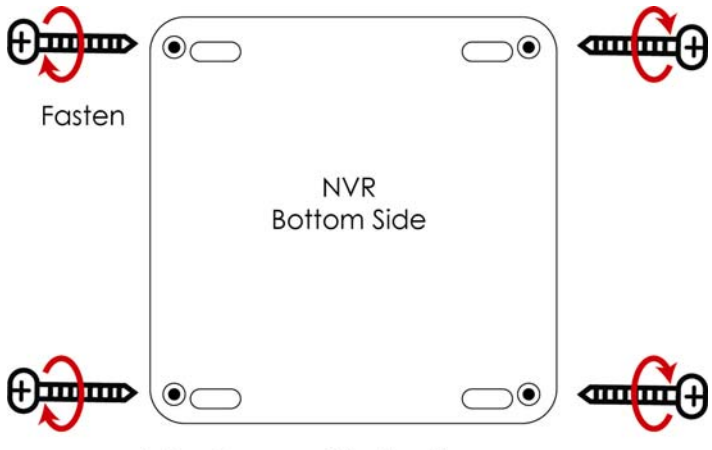
4. Fasten your hard disk to the bracket with screws.

Step5: Replace the upper cover back to the NVR.

Step6: Replace and fasten the screws loosened in Step1 to the NVR.



5. Replace the upper cover back.



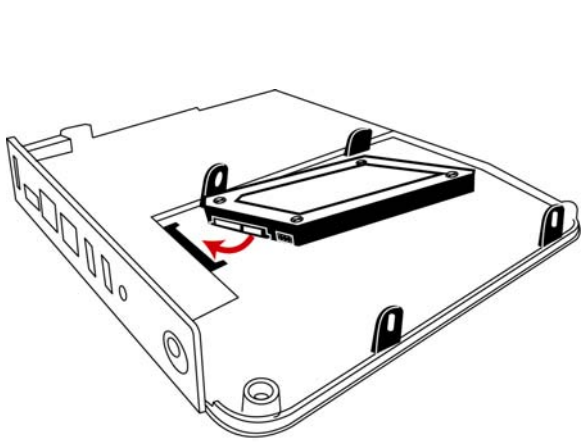
6. Replace and fasten the screws.

To install a 2.5” hard disk

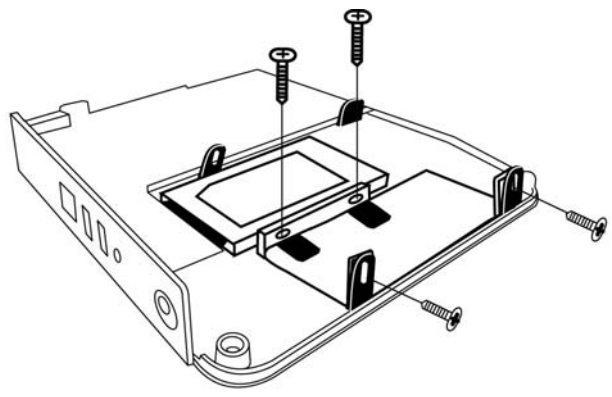
Step1: Please follow the first two steps of To install a 3.5” hard disk to remove the upper cover of the NVR.

Step2: With the PCB side facing down, connect your hard disk to the NVR as shown below.

Step3: Please fasten the supplied bracket to the NVR, and fix the hard disk to the bracket.



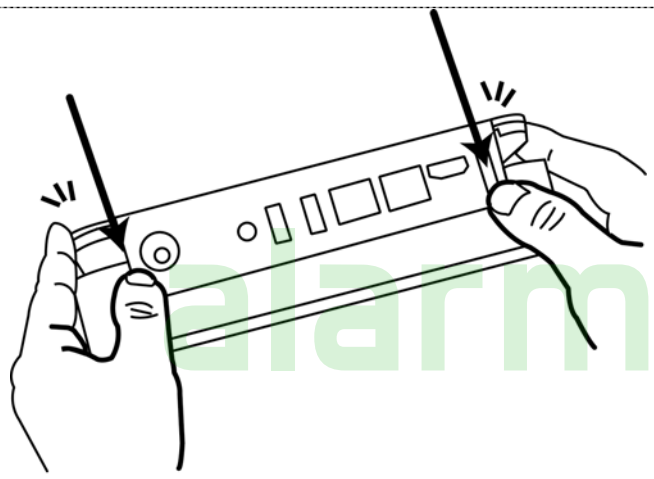
2. Connect your hard disk to the NVR.



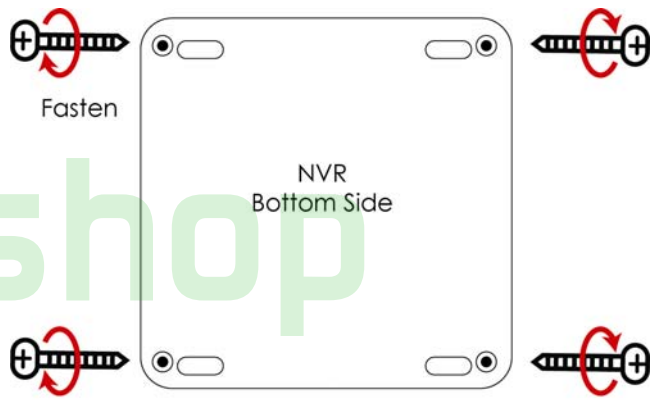
3. Fasten the supplied bracket to the NVR and fix the hard disk to the bracket.

Step4: Replace the upper cover back to the NVR.

Step5: Replace and fasten the screws loosened in Step1 to the NVR.



4. Replace the upper cover back.



5. Replace and fasten the screws.

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Note: Before remote firmware update, please install a HDD into your NVR first to make sure the firmware update works properly.

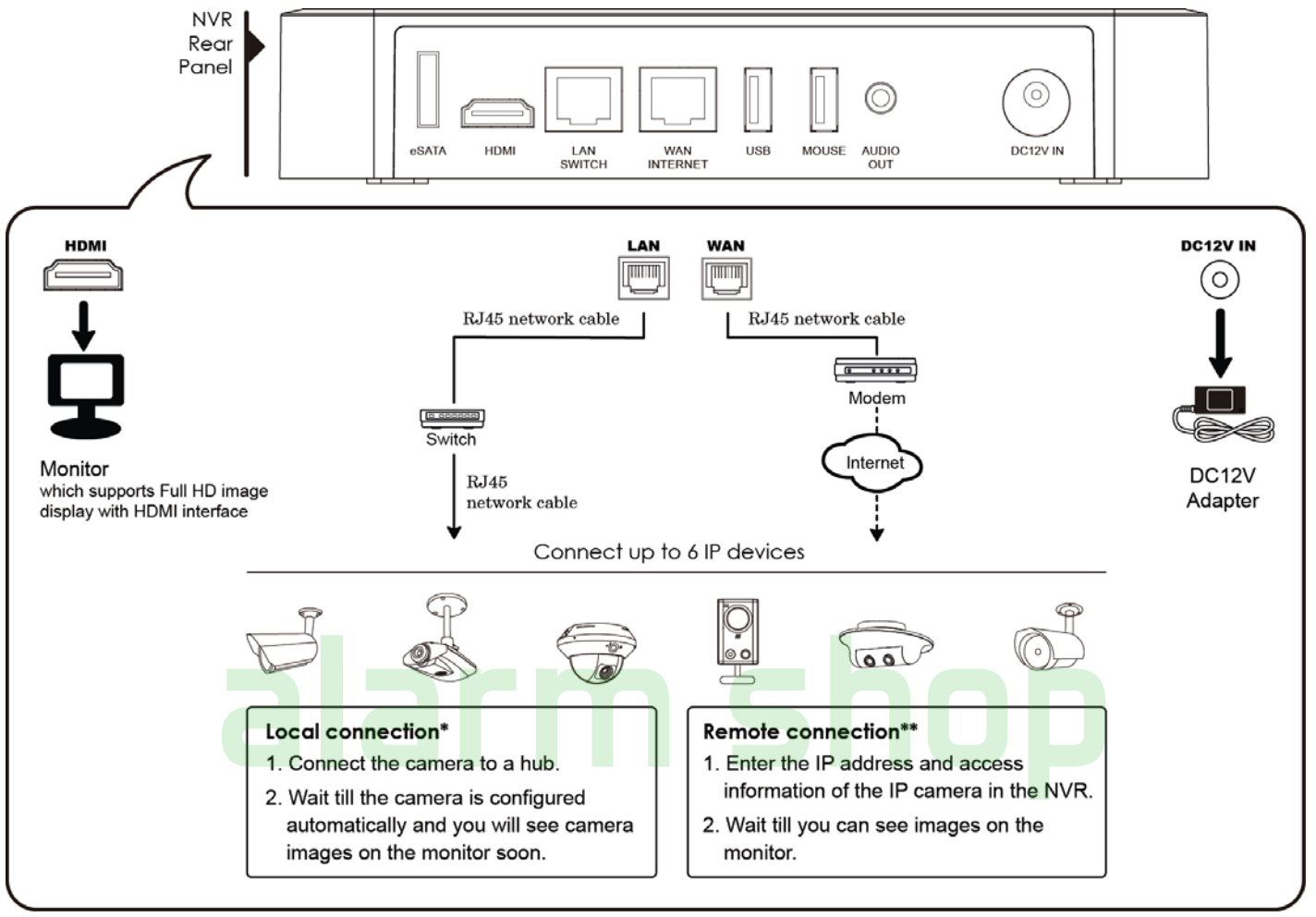
Note: It’s not recommended to use a green HDD with your NVR to make sure it works properly.

2.2 Camera IP Configurations by LAN

2.2.1 AUTO Mode

Auto mode is to simplify the complicated network settings within three minutes. The connection mode of the LAN port is “AUTO” by default. This mode is suitable when the LAN port of the NVR is connected to a hub.

Note: SETTING Path: (ADVANCED CONFIG) → NETWORK → LAN → MODE.



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The NVR will ***automatically*** configure the IP address of a camera connected by LAN if:

- The connected IP camera is our brand's IP camera.
- Reset the IP camera to default value (the default IP configuration method of the camera is "DHCP").
- The camera is powered on before the NVR is powered on.

If the NVR **doesn't** configure the IP address of your camera automatically as described above, your IP camera might **NOT** be:

- Our brand's IP camera.
- Set to "DHCP" as its default IP configuration method.

To solve this, use our brand's IP camera, and reconfigure its IP address to 10.1.1.*xx* (*xx* ranges from 11 ~ 253), in the same network segment as the NVR.

a) Select " " on the bottom of the screen, you'll see the list of every connected IP camera with its connection status to this NVR and MAC address.

b) Select the IP address which is not used, and select "SETUP".

IP SEARCH

IP	PORT	MAC	PROTOCOL	STATUS
10.1.1.12	88	00:0e:53:e5:9a:f1	AVTECH	CONNECTED TO CH1
10.1.1.13	88	00:0e:53:a6:91:18	AVTECH	CONNECTED TO CH2
10.1.2.14	88	00:0e:53:a5:9f:a2	AVTECH	UNUSED
10.1.1.15	88	00:0e:53:e1:4e:k5	AVTECH	CONNECTED TO CH3
10.1.1.16	88	00:0e:53:s5:3e:h6	AVTECH	CONNECTED TO CH4
10.1.1.17	88	00:0e:53:e6:4b:26	AVTECH	CONNECTED TO CH5

	CONNECT	SETUP	EXIT

c) Select "DHCP" in "NETWORK TYPE".

d) Click "APPLY" and "EXIT" to save your changes.

SETUP

NETWORK TYPE	DHCP
IP	10.1.1.14
PORT	88
USER NAME	admin
PASSWORD	*****
NETMASK	255.0.0.0
GATEWAY	10.1.1.10
PRIMARY DNS	168.95.1.1

APPLY	EXIT

e) The NVR will then detect the IP camera and display images soon.

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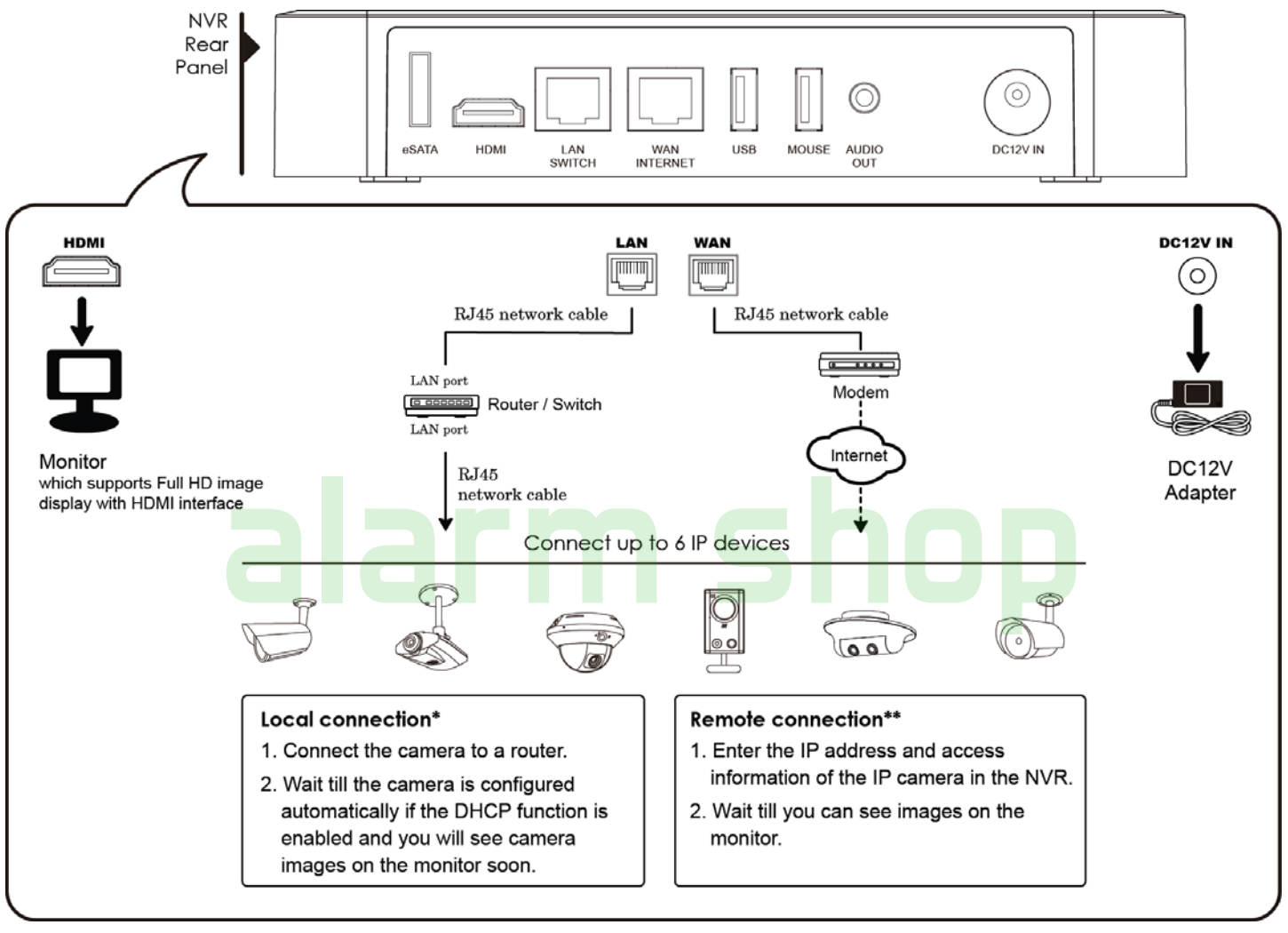
2.2.2 Static / DHCP Mode

Note: SETTING Path: (ADVANCED CONFIG) → NETWORK → LAN → MODE.

When the LAN port of the NVR is connected to a router (not a hub), you can:

- Choose “Static” when you know the network segment of your router.
  For example, the IP address of your router of *192.168.0.1*, and the network segment of your router will be *192.168.0.xx* (*xx* is ranged from 2 ~ 254).
  You can assign the IP address of the connected IP camera(s) by yourself.
- Choose “DHCP” when your router supports the DHCP function, and you do not know the network segment of your router.
  The IP address of the connected IP camera(s) will be assigned by your router.



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2.3 Manual Connection Setup

To manually assign a channel to connect to the IP camera, select a corresponding “PROTOCOL” from the drop down list first, click “URI” to enter the address of the camera, and enter its port number. There are four protocol types available in the drop down list as follows: “AVTECH”, “ONVIF”, “RTSP OVER HTTP”, and “RTSP OVER UDP”. If you are using AVTECH IP cameras, please select “AVTECH”; otherwise, choose the protocols your cameras support.

ADVANCED CONFIG

CONNECTION
CAMERA
DETECTION
ALERT
NETWORK
DISPLAY
RECORD
NOTIFY
EXIT

CHANNEL	PROTOCOL	URI	PORT		PATH	CONFIG
CH1	AVTECH	://ip_office.ddns.eagleeyes.tw	:80	/		SETUP
CH2	ONVIF	://10.1.1.14	:88	/		SETUP
CH3	RTSP OVER HTTP	://10.1.1.30	:88	/		SETUP
CH4	RTSP OVER UDP	://10.1.1.12	:88	/		SETUP
CH5	AVTECH	://10.1.1.16	:88	/		SETUP
CH6	AVTECH	://10.1.1.13	:88	/		SETUP

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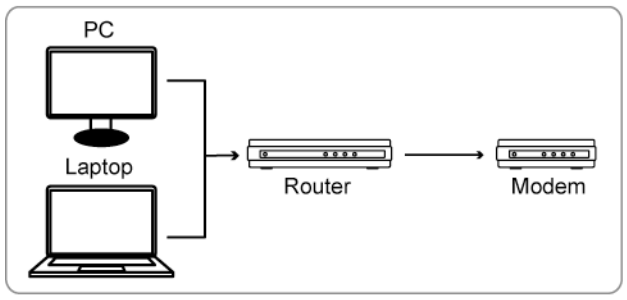
3. NETWORK CONFIGURATIONS

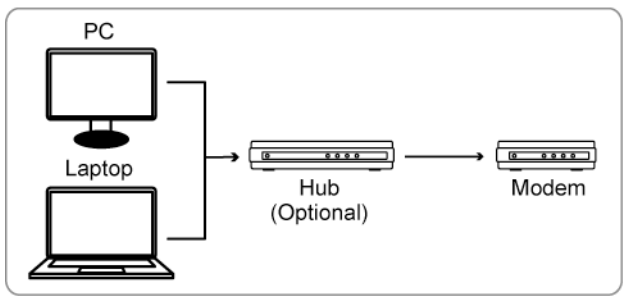
Note: Network configurations may require a person who has advanced network knowledge. It's recommended to check with your installer for this service if possible.

3.1 Understand How Your Laptop / Computer Connect to Internet

1. Router + Modem



2. Modem or Modem + Hub



⟶ Devices connected with a RJ45 network cable

Then, connect your NVR directly to your router / hub / modem with a network cable, and power it on.

If you're using:

- Router + modem, please refer to "3.2 Router + Modem".
- Modem or modem + hub, please refer to "3.3 Modem / Hub + Modem".

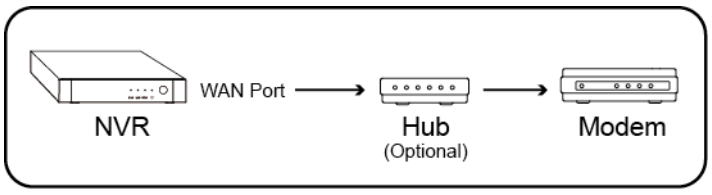
3.2 Router + Modem

Before configuring, make sure:

- Your laptop / PC is connected to the same router as the NVR is intended to connect to.
- You know the IP address, user name and password to access your router.
- The DHCP function of your router is on.

Note: For details, please refer to the user manual of your router.

Step1: Connect your NVR to the router with a RJ45 network cable, similar as follows:



⟶ Devices connected with a RJ45 network cable

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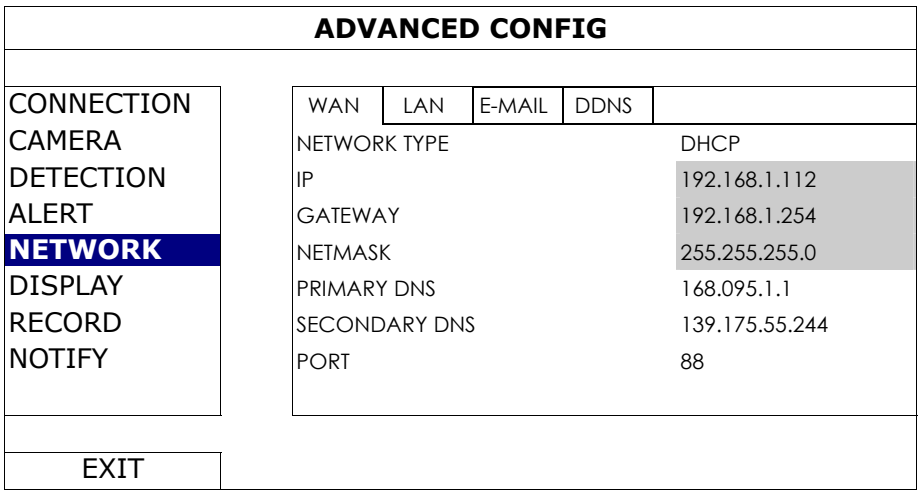
Step2: From your NVR, select (ADVANCED CONFIG), and select “Network” → “WAN”.



Step3: Select “DHCP”, and configure the DNS setting and port number.

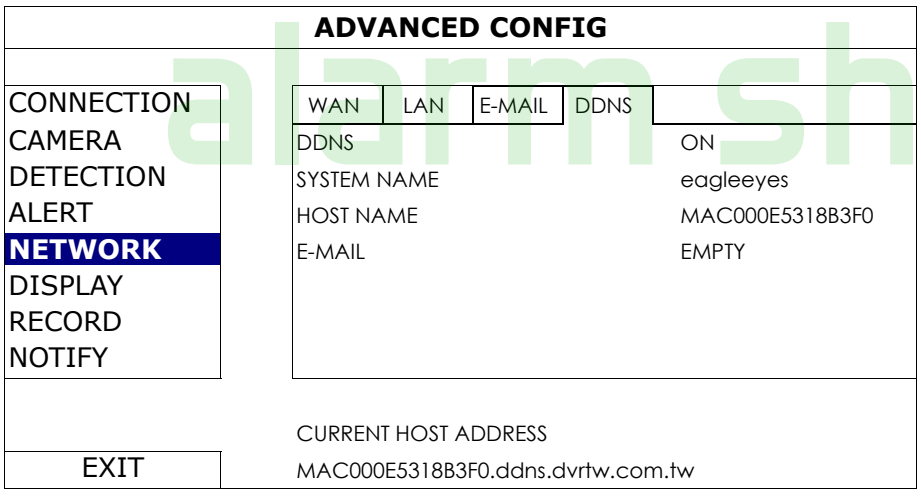
Note: DNS is the domain name server obtained from your ISP (Internet Service Provider).

Note: The default port number is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

Then, note down the IP address shown in “IP”. This is the IP address assigned to your NVR by the router. You’ll need it later for port forwarding.

Step4: Go to “DDNS”, and select “eagleeyes” in “SYSTEM NAME”.

Note down the whole address under “CURRENT HOST ADDRESS”, such as MAC000E5318B3F0@ddns.dvrtw.com.tw. This will be the address used to access your NVR remotely.



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Then, select “EXIT” to return to the live view, and continue to Step5 for port forwarding.

Step5: From the web browser of your PC, enter the IP address of your router to access your router.

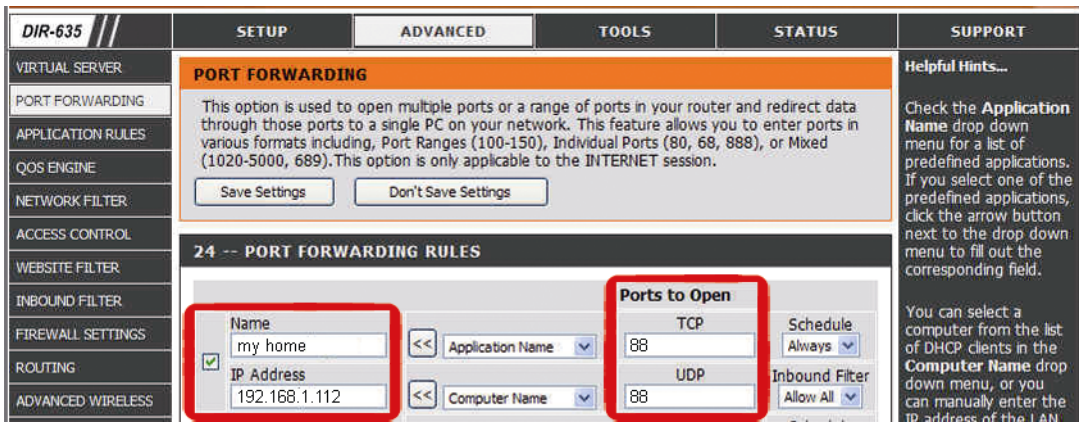
Note: Enter the user name and password if needed.

Step6: In the router setting interface, go to the port forwarding (or virtual server) rule configuration page.

Note: The naming of port forwarding or virtual server may vary based on different router brands. To know where it is, please refer to the user manual of your router.

Then, enter the NVR IP address and the port number you note down in Step3, and enable this rule.

Take D-Link router as an example:
Go to “ADVANCED” → “PORT FORWARDING”.


DIR-635
SETUP
ADVANCED
TOOLS
STATUS
SUPPORT
VIRTUAL SERVER
PORT FORWARDING
APPLICATION RULES
QOS ENGINE
NETWORK FILTER
ACCESS CONTROL
WEBSITE FILTER
INBOUND FILTER
FIREWALL SETTINGS
ROUTING
ADVANCED WIRELESS
PORT FORWARDING
This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).This option is only applicable to the INTERNET session.
Save Settings
Don't Save Settings
24 -- PORT FORWARDING RULES
Name
my home
IP Address
192.168.1.112
Application Name
Computer Name
Ports to Open
TCP
88
UDP
88
Schedule
Always
Inbound Filter
Allow All
Helpful Hints...
Check the Application Name drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.
You can select a computer from the list of DHCP clients in the Computer Name drop down menu, or you can manually enter the

IP Address:	The IP address of the NVR, such as *192.168.1.112* in our example.
Ports to Open:	The port number you set for the NVR, such as *88* in our example.

Check your connection

Step1: Open your web browser, e.g. Internet Explorer.

Step2: Enter the NVR address and the port number in the URL address box of the web browser, and see if you can access the login page of the camera successfully.

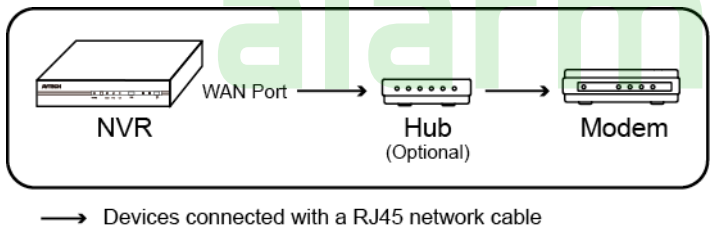
The format is "***http://ipaddress:portnum***" or "***http://hostaddress:portnum***".

3.3 Modem / Hub + Modem

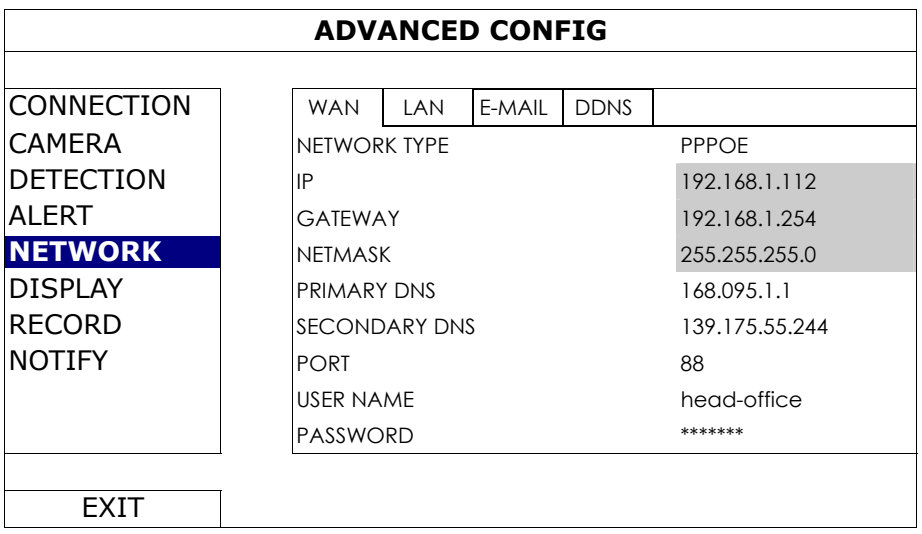
Before configuring, make sure:

- You know you're using static IP address or PPPoE for Internet service.
- For users with static IP address, make sure you get the information of the static IP address, gateway and net mask from your ISP (Internet Service Provider).
- For users with PPPoE, make sure you get the user name and password from your ISP (Internet Service Provider).

Step1: Connect your NVR to the hub or modem with a RJ45 network cable, similar as follows:



Step2: From your NVR, select (ADVANCED CONFIG), and select "Network" → "WAN".



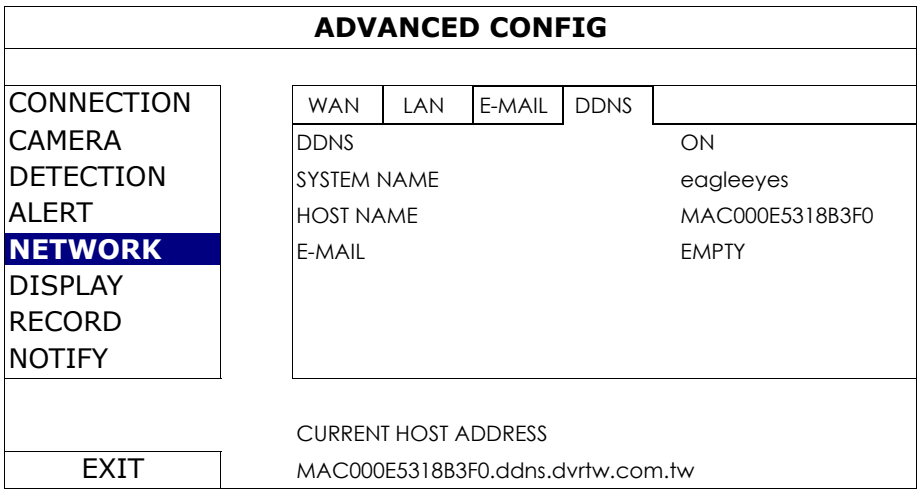
Step3: Select "**STATIC**", "**PPPOE**" or "**DHCP**" based on your network type, and change the port number if needed.

- For "**STATIC**", enter the information of the static IP address, gateway and net mask from your ISP.
- For "**PPPOE**", enter the user name and password from your ISP.
- For "**DHCP**", go to "Step4" directly for port forwarding.

Note: The default port number is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

Step4: (**PPPOE** & **DHCP** Only) Go to “DDNS”, and select “eagleeyes” in “SYSTEM NAME”.

Note down the whole address under “CURRENT HOST ADDRESS”, such as MAC000E5318B3F0@ddns.dvrtw.com.tw. This will be the address used to access your NVR remotely.



Then, select “EXIT” to return to the live view and finish network configurations.

Check your connection

Step1: Open your web browser, e.g. Internet Explorer.

Step2: Enter the IP address (**STATIC**) or host address (**PPPOE** / **DHCP**), and the port number in the URL address box of the web browser, and see if you can access the login page of the camera successfully. The format is “***http://ipaddress:portnum***” or “***http://hostaddress:portnum***”.

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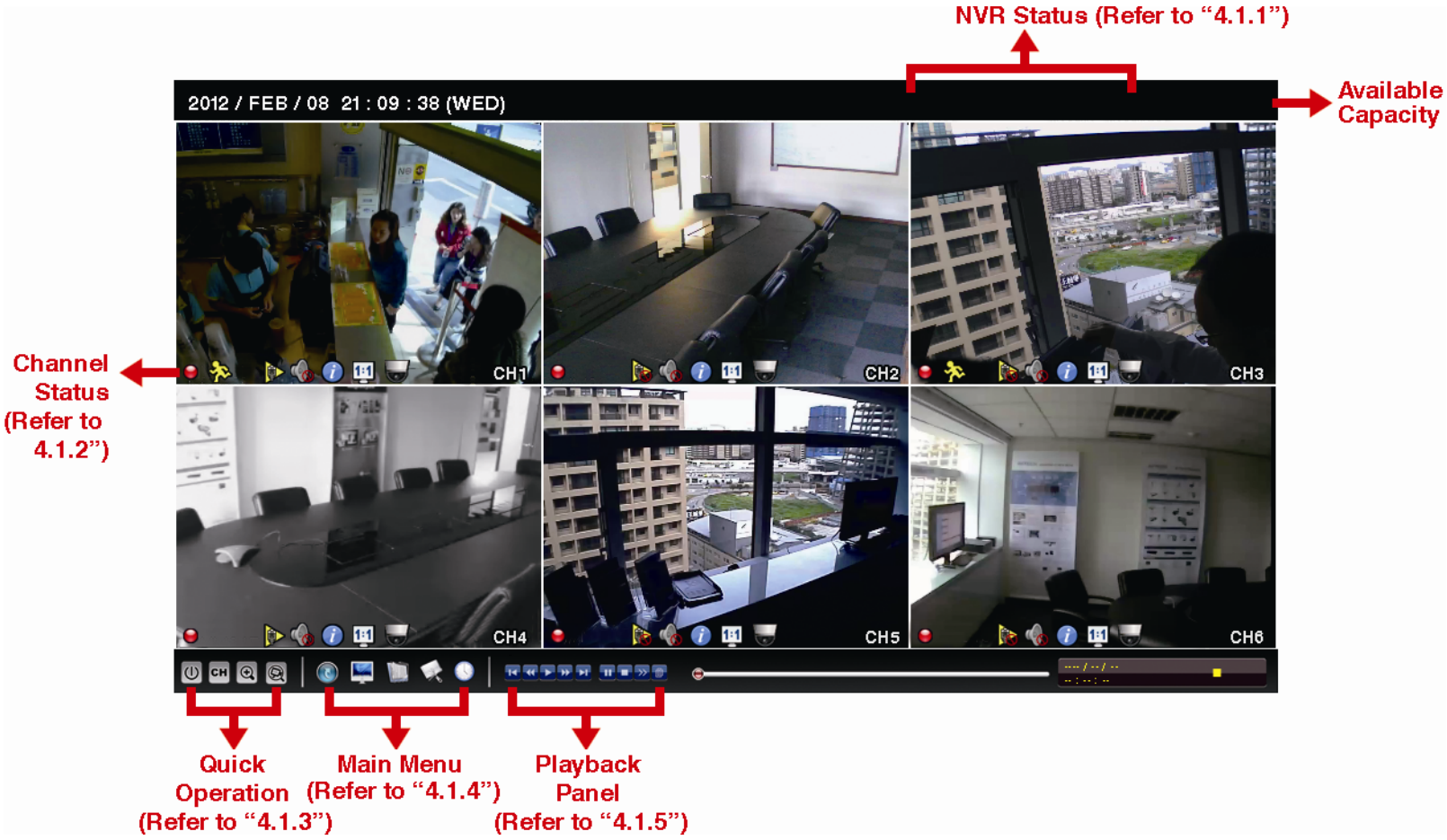
4. USER INTERFACE

4.1 Local



4.1.1 NVR Status

	Key lock		Key unlock
	Channel lock		Channel unlock
	USB flash drive / device connected		No USB device connected
	Timer record on		Timer record off
	Overwrite on		Overwrite off
	Sequence mode on		Sequence mode off
	PTZ mode on		PTZ mode off
	CPU loading		
Network Status:			
	(WAN) Internet connected		(WAN) Internet disconnected
	(WAN) Local connection		
	(LAN) Auto mode –Mbit/s		(LAN) Auto mode – Gbit/s
	(LAN) DHCP / Static IP mode		(LAN) Camera disconnected

4.1.2 Channel Status

	Auto search on		Auto search off	1:1	Original size		Fit to screen
	Live audio on		Audio off		Audio playback on		Audio playback off
	Recording		Human detection event		Alarm event		Motion event
	Live information		Playback information		PTZ Control		

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4.1.3 Quick Operation

For details, please refer to “6. QUICK OPERATION” at page 21.

	Click to show the power off panel to either halt or reboot the system.
	Click to show the channel switch panel and select the channel you want.
	Switch to the channel you want first, and click to enter the zoom-in mode. In this mode, click and drag the red frame on the bottom left of the screen to move to the place you want to see.
	Click to open the IP search window and check the current connection status of each channel.

4.1.4 Main Menu

For details, please refer to “7. MAIN MENU” at page 24.

	QUICK START	Click to set the status display, image settings, and date & time.
	SYSTEM	Click to set the system configurations.
	EVENT INFORMATION	Click to enter the event search menu.
	ADVANCED CONFIG	Click to set CONNECTION, CAMERA, DETECTION, ALERT, NETWORK, DISPLAY, RECORD and NOTIFY.
	SCHEDULE SETTING	Click to set record timer and event timer.

4.1.5 Playback Panel

	Fast Forward	Increase the speed for fast forward from 4X to 32X.
	Fast Rewind	Increase the speed for fast rewind from 4X to 32X.
/	Play / Pause	Click to play the latest recorded video clip immediately, and click again to pause. In the pause mode, click once to get one frame forward, and click to get one frame rewind.
	Stop	Click to stop the video playback.
	Slow Playback	Click once to get 1/4X speed playback, and click twice to get 1/8X speed playback.
/	Previous / Next Hour	Click to jump to the next / previous time interval in an hour, for example, 11:00 ~ 12:00 or 14:00 ~ 15:00, and start playing the earliest event video clip recorded during this whole hour.
	Quick Search	Click to enter the quick search menu for specific record data search.

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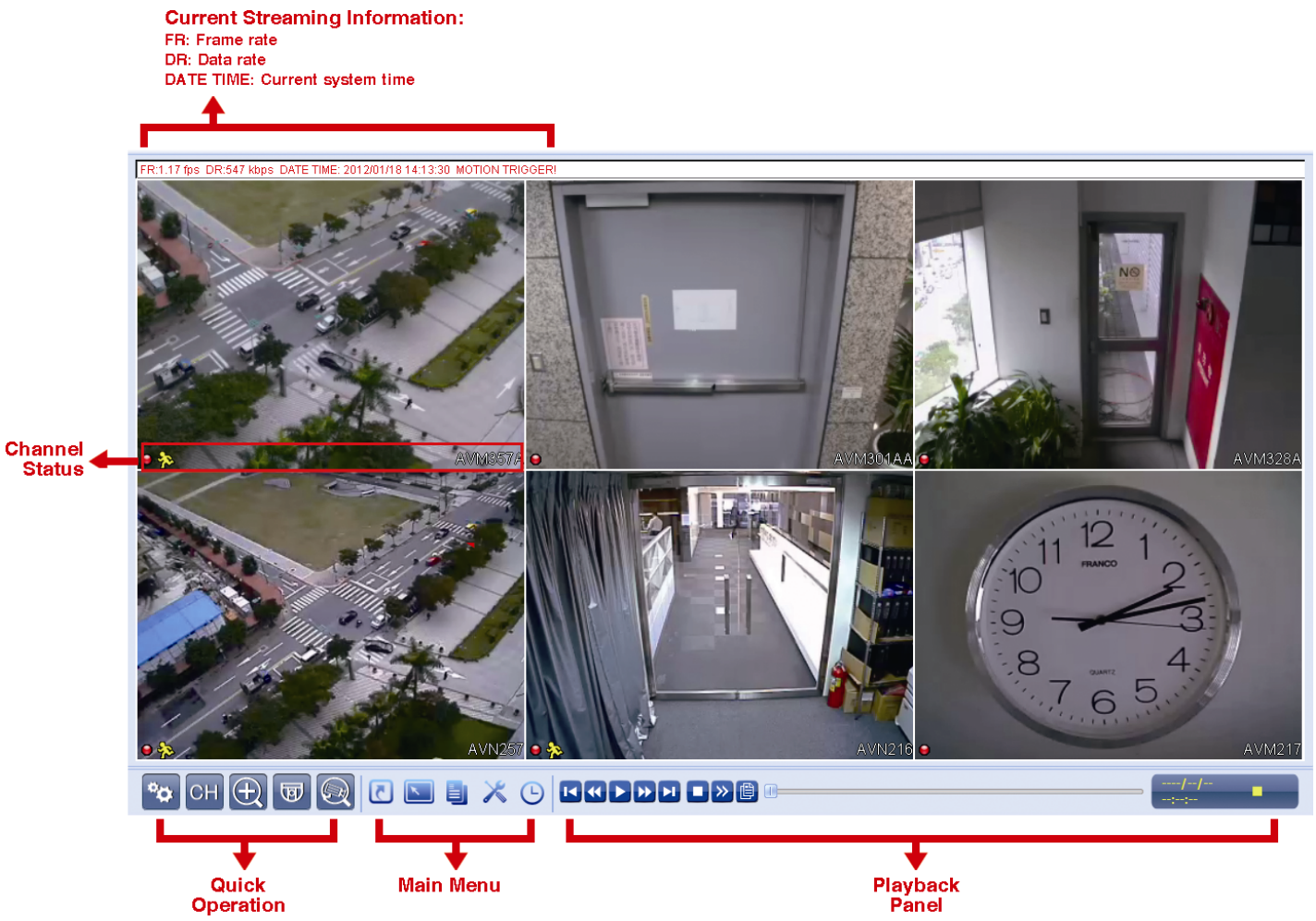
4.2 Remote



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5. FREQUENTLY-USED FUNCTIONS

5.1 Key Lock / Unlock

To lock or unlock NVR local operation, click (unlock) or (lock) on the NVR status bar to change the status to (lock) or (unlock).

To unlock NVR local operation, you'll be prompted to enter the user level and password to access.

Note: The default user level and password are both "admin".

Note: Different user level has different access privilege for certain NVR functions. For details, please refer to "5.4 User Level Creation" at page 17.

5.2 Channel Selection

Note: Channel switch is available only for "SUPERVISOR". To know more details, please refer to "5.4 User Level Creation" at page 17.

5.3 IP Device Search

Note: This function is available only for "SUPERVISOR". To know more details, please refer to "5.4 User Level Creation" at page 17.

Click (IP Search) to start searching IP camera(s) connected in the same network segment as the NVR (i.e. *10.1.1.xx* by default).

You'll see the list of every connected IP camera with its connection status to this NVR and MAC address.

IP SEARCH

IP	PORT	MAC	PROTOCOL	STATUS
10.1.1.12	88	00:0e:53:e5:9a:f1	AVTECH	CONNECTED TO CH1
10.1.1.13	88	00:0e:53:a6:91:18	AVTECH	CONNECTED TO CH2
10.1.1.14	88	00:0e:53:a5:9f:a2	AVTECH	UNUSED
10.1.1.15	88	00:0e:53:e1:4e:k5	ONVIF	CONNECTED TO CH3
10.1.1.16	88	00:0e:53:s5:3e:h6	ONVIF	CONNECTED TO CH4
10.1.1.17	88	00:0e:53:e6:4b:26	ONVIF	CONNECTED TO CH5
10.1.1.18	88	00:0e:53:g2:3b:e7	AVTECH	CONNECTED TO CH6

	CONNECT	SETUP	EXIT

To fix the camera IP address, or allow the NVR to assign an IP address to your IP camera, select "SETUP", and select "STATIC IP " or "DHCP" for "NETWORK TYPE".

Click "APPLY" and "EXIT" to save your changes.

SETUP

NETWORK TYPE	DHCP
IP	10.1.1.14
PORT	80
USER NAME	admin
PASSWORD	*****
NETMASK	255.0.0.0
GATEWAY	10.1.1.10
PRIMARY DNS	168.95.1.1

APPLY	EXIT

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To connect to another IP camera, select the unused IP camera from the IP search list, and select "CONNECT". Select the channel you want to display the camera images, and click "SAVE" to start connection.

CONNECT

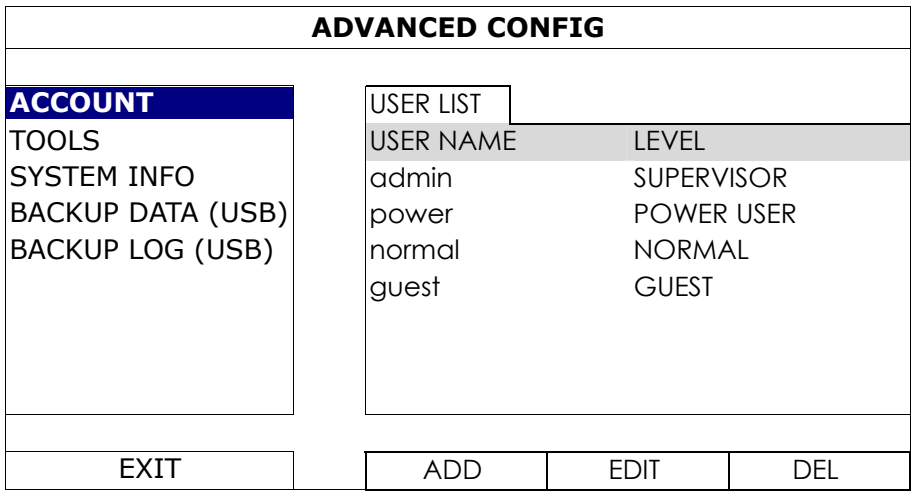
IP	10.1.1.14
PORT	88
CHANNEL	CH5
USER NAME	admin
PASSWORD	*****

SAVE	CANCEL

5.4 User Level Creation

Note: This function is available only for "SUPERVISOR".

To create different user account for different access privilege, click (SYSTEM), and select "ACCOUNT" to enter "USER LIST".



Different user level has different access privilege for certain functions as described below:

	Function	User Level			
		SUPERVISOR	POWER	NORMAL	GUEST
■ NVR status					
/	Key lock / unlock	✓	✓	✓	
/	Channel switch lock / unlock	✓			
■ Channel status					
/	Auto search on / off	✓			
/	Live audio on / off	✓			
/	Playback audio on / off	✓			
/	Original size / Fit to screen	✓			
/	Live / Playback information	✓			
	DPTZ Control	✓	✓		
■ Quick operation					
	Power	✓			
CH	Channel Switch	✓	✓	✓	
	Digital Zoom	✓	✓	✓	
	IP Search	✓			
■ Main menu					
	Quick Start	✓			
	System	✓			
	Event Information	✓			
	Advanced Config.	✓			
	Schedule Setting	✓			

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	Function	User Level			
		SUPERVISOR	POWER	NORMAL	GUEST
■ Playback control					
	Fast Forward	✓	✓		
	Fast Rewind	✓	✓		
/	Play / Pause	✓	✓		
	Stop	✓	✓		
	Slow Playback	✓	✓		
/	Previous / Next Hour	✓	✓		
	Quick Search	✓	✓		

5.5 PTZ Control (1CH Mode)

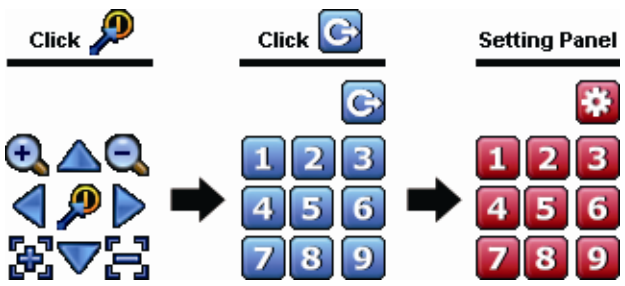
Note: This function is available only for "SUPERVISOR" and "POWER USER". To know more details, please refer to "5.4 User Level Creation" at page 17.

Click on the channel status bar to display the panel as follows:

	/ / /	Up / Down / Left / Right	Click to move your selection up / down / left / right, or change settings.
	/	Digital zoom in / out	Click to zoom in / out the camera image digitally.
	/	Focus near / far	Click to adjust the focus of the image.
		Preset point	Click to display the preset point panel for preset point viewing or setting. For details, please refer to the section below.

How to set a preset point:

Step1:



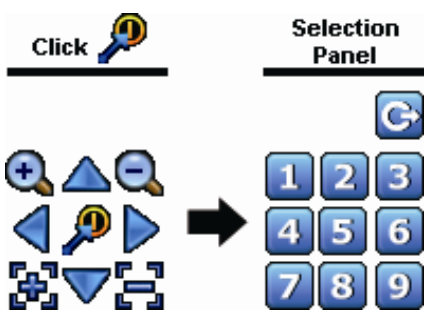
Step2: Click or to the proper ratio you need, and click / / / to move to the point you want to configure as a preset point.

Step3: Click the numbering you want to configure for this point, and wait till you see (command sending) appearing and disappearing on the NVR status bar.

Step4: Repeat from Step1 again to set other points if needed, or click to return to the preset point selection panel

How to go to a preset point:

Step1:

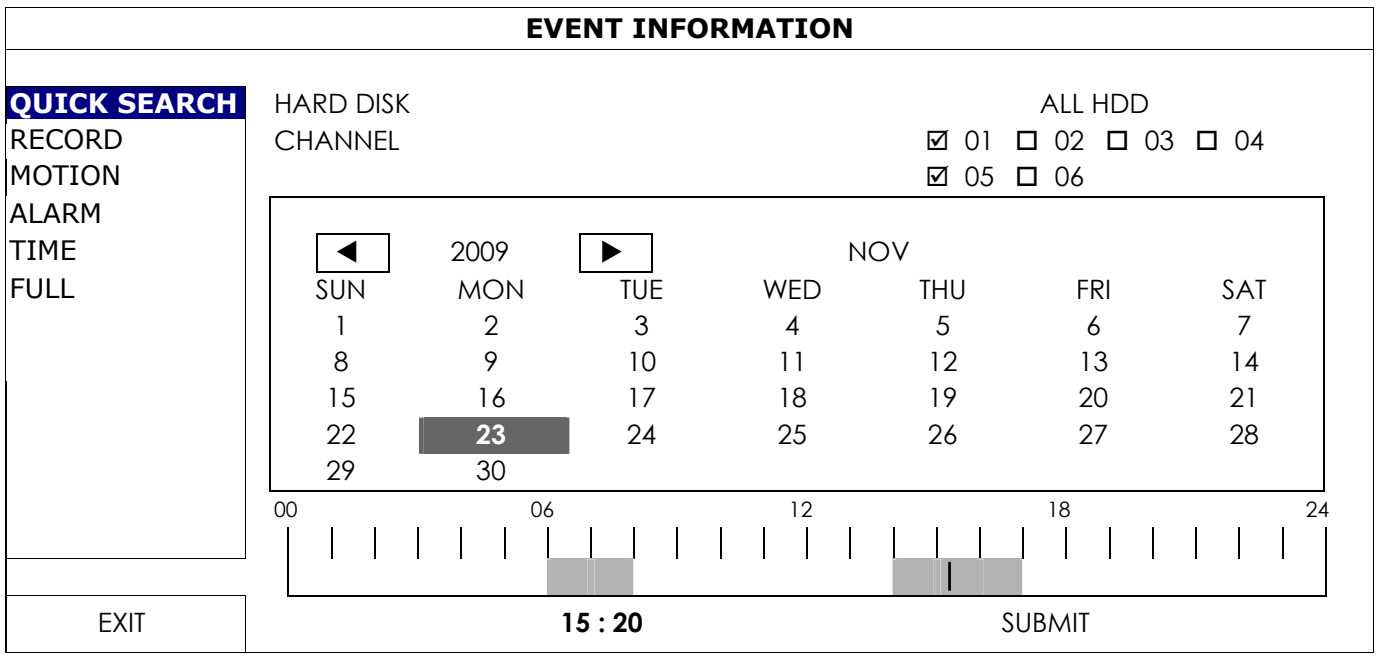


Step2: Select the numbering within which saves the camera view you want to see, and wait till you see (command sending) appearing and disappearing on the NVR status bar.

5.6 Event Search

Note: This function is not available for "NORMAL" and "GUEST". For details, please refer to "5.4 User Level Creation" at page 17.

In the playback control bar, click to enter the search list.



- To quickly search the time within which might include the recorded data you want to see:
  - Select the channel(s) and month you want to search. You'll see the date(s) with recorded data is highlighted.
  - Select the date you want to search. You'll see the time with recorded data is highlighted from the timeline bar.
  - Click the time to start playback.
- To search the recorded data by event, select RECORD / MOTION / ALARM / TIME, or select FULL to show all the event logs. Select the log you want to start playback.

Note: During video playback, you might click to check the recorded data details, or click to play the recorded audio (if any) on the channel you want.

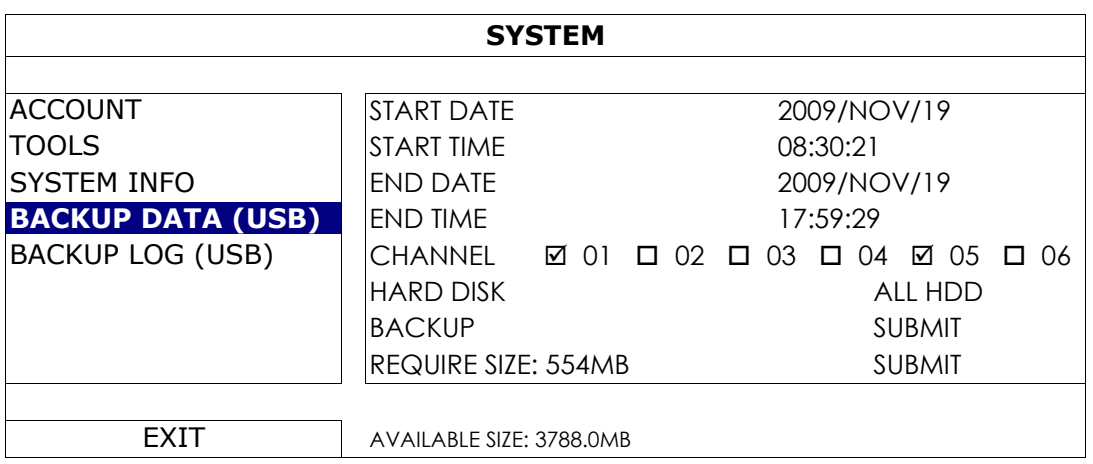
5.7 Video Backup

Note: This function is available for "SUPERVISOR". For details, please refer to "5.4 User Level Creation" at page 17.

Note: Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to "APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST at page 44.

Note: For video backup, please use USB flash drive or back your data up over the Internet. It's not recommended to connect the HDD to your PC directly.

To copy recorded data for video backup, click (SYSTEM), and select "BACKUP DATA (USB)".



Step1: Select the time within which includes the video data you want to backup.

Step2: Select the channel(s) within which includes the video data you want to backup.

Step3: In “REQUIRE SIZE”, select “SUBMIT” to know the file size of the selected data.

Step4: In “BACKUP”, select “SUBMIT” to start backup to your USB flash drive, and wait till the backup successful message appears.

5.8 Video Playback on PC

The backup file is the unique video format for security reasons, and you can only use our own player to play.

To play video backup on your PC:

Step1: Insert the USB flash drive with recorded data into your PC.

Note: The supported PC operating systems are Windows 7, Vista & XP.

Step2: Find the program “PLAYER.EXE” in the USB flash drive, and double-click it to install.

Note: “PLAYER.EXE” can also be downloaded from www.surveillance-download.com/user/h800.swf.

Step3: Run the program, *VideoPlayer_NVR*, and browse to where you save the recorded data.

Step4: Select the file you want to start video playback.

5.8.1 Convert the file format to AVI

To convert the video file format to AVI, click “AVI” from the playback panel to start file conversion.

Note: The recorded audio (if any) will be removed when the file format is converted to AVI.

Note: If the backup video includes data for multiple channels, click to a specific channel for this function to work properly.

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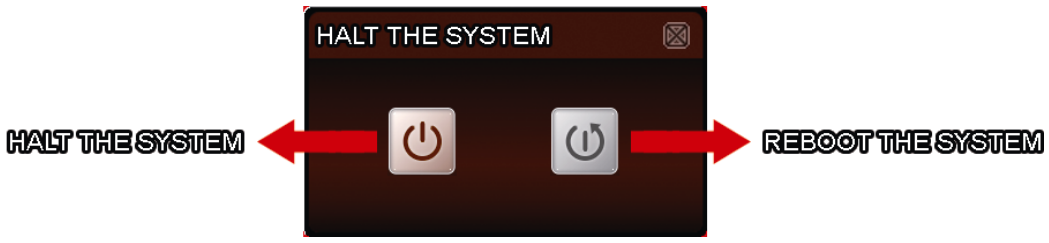
6. QUICK OPERATION

6.1 Power Switch

Note: This function is available only for "SUPERVISOR". To know more details, please refer to "5.4 User Level Creation" at page 17.

To power off or reboot the NVR, you may:

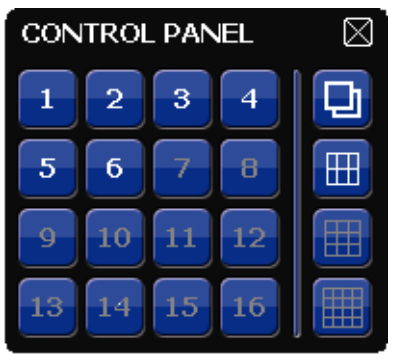
- Turn the power switch ( ) directly on the NVR rear panel (refer to "1.2 Rear Panel" at page 1), or
- Go to , and select (power off) or (reboot).



6.2 Channel Selection

To display a specific channel in full screen and restore to the 6-cut view, you may:

- Directly click the channel you want on the screen, and click it twice to restore to the 6-cut view (refer to "5.2 Channel Selection" at page 15), or
- Go to , and select the channel you want to display in full screen from 1 ~ 6, and select to restore to the 6-cut view.



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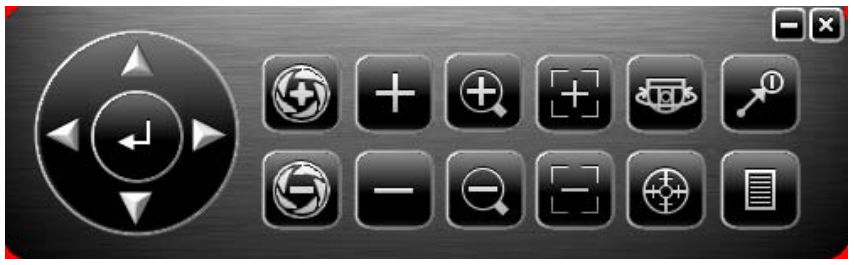
6.3 PTZ Control (All CH mode)

Note: This function is available only for "SUPERVISOR" and "POWER USER". To know more details, please refer to "5.4 User Level Creation" at page 17.

Click on the quick menu bar to display the panel as follows:

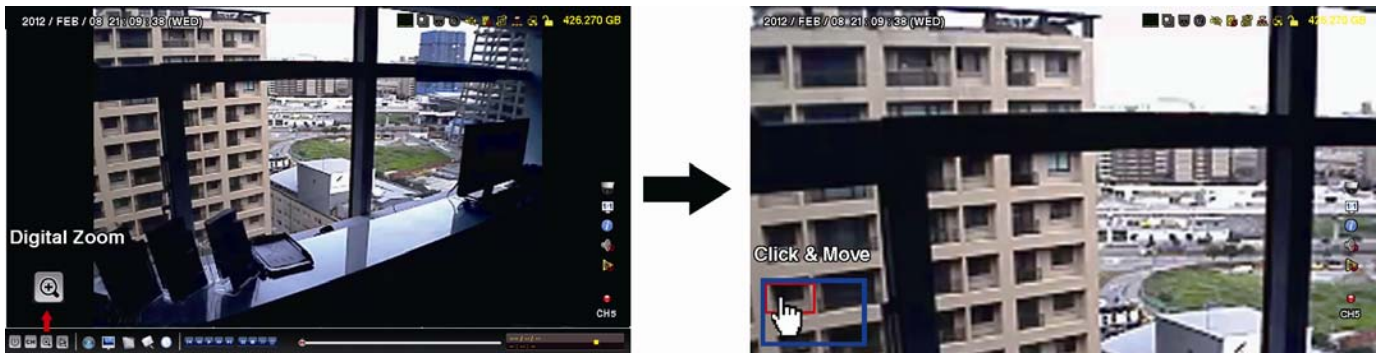


/ / /	Up / Down / Left / Right	Click to move your selection up / down / left / right, or change settings.
	Enter	Click to confirm your selection / enter the menu.
/	Iris + / Iris -	This two buttons are designed for PTZ camera. To know the action after clicking Iris + and Iris -, please refer to the camera's user manual. If you using an analogue camera, paired with Video Server*, make sure the camera and Video Server support P-D / P-P protocol for PTZ control.
/	Zoom in / out max	Click to zoom in on the image to the largest / zoom out on the image to its original size.
/	Zoom in / out	Click to zoom in / out the image.
/	Focus near / far	Click to adjust the focus of the image.
	Auto pan	Click to activate the auto pan. Before using it, you need to assign a specific function that will be enabled when "AUTO" is clicked. For details, please refer to the user manual of the PTZ camera.
	Auto tracking	Click to activate the auto tracking. Before using it, you need to assign a specific function that will be enabled when "AUTO" is clicked. For details, please refer to the user manual of the PTZ camera.
	Preset point	Click to enter the PTZ preset point you want to see.
	Camera Menu	Click to enter the camera main menu. For details about each camera menu, please refer to the user manual of the PTZ camera.

*To know how to configure NVR with video server, please refer to the user manual of video server.

6.4 Digital Zoom

Switch to the channel you want to zoom in, and click to enter the zoom-in mode. In this mode, click and drag the red frame on the bottom left of the screen to move to the place you want to see.



To exit this mode, right-click anywhere on the screen.

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6.5 IP Device Search

Note: This function is available only for "SUPERVISOR". To know more details, please refer to "5.4 User Level Creation" at page 17.

Click (IP Search) to start search IP camera(s) connected in the same network segment as the NVR (i.e. 10.1.1.xx by default).

You'll see the list of every connected IP camera with its connection status to this NVR and MAC address.

IP SEARCH

IP	PORT	MAC	PROTOCOL	STATUS
10.1.1.12	88	00:0e:53:e5:9a:f1	AVTECH	CONNECTED TO CH1
10.1.1.13	88	00:0e:53:a6:91:18	AVTECH	CONNECTED TO CH2
10.1.1.14	88	00:0e:53:a5:9f:a2	ONVIF	UNUSED
10.1.1.15	88	00:0e:53:e1:4e:k5	ONVIF	CONNECTED TO CH3
10.1.1.16	88	00:0e:53:s5:3e:h6	ONVIF	CONNECTED TO CH4
10.1.1.17	88	00:0e:53:e6:4b:26	AVTECH	CONNECTED TO CH5
10.1.1.18	88	00:0e:53:g2:3b:e7	AVTECH	CONNECTED TO CH6

CONNECT | SETUP | EXIT

To fix the camera IP address, or allow the NVR to assign an IP address to your IP camera, select "SETUP", and select "STATIC IP " or DHCP" for "NETWORK TYPE".

Click "APPLY" and "EXIT" to save your changes.

SETUP

NETWORK TYPE	DHCP
IP	10.1.1.14
PORT	00080
USER NAME	admin
PASSWORD	*****
NETMASK	255.0.0.0
GATEWAY	10.1.1.10
PRIMARY DNS	168.95.1.1

APPLY | EXIT

To connect to another IP camera, select the unused IP camera from the IP search list, and select "CONNECT". Select the channel you want to display the camera images, and click "SAVE" to start connection.

CONNECT

IP	10.1.1.14
PORT	88
TARGET CHANNEL	CH5
USER NAME	admin
PASSWORD	*****

SAVE | CANCEL

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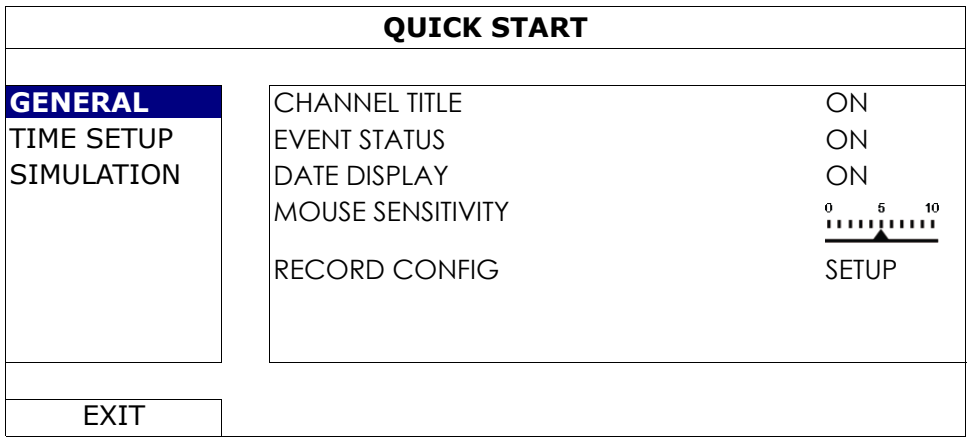
7. MAIN MENU

Note: This menu is available only for "SUPERVISOR". To know more details, please refer to "5.4 User Level Creation" at page 17.

7.1 QUICK START

7.1.1 GENERAL



1) CHANNEL TITLE

   Select to display the channel title or not (ON / OFF).

2) EVENT STATUS

   Select to display the event icons or not (ON / OFF).

Note: For details about each event icon, please refer to "4.1 Local" at page 12.

3) DATE DISPLAY

   Select to display the date or not (ON / OFF).

4) MOUSE SENSITIVITY

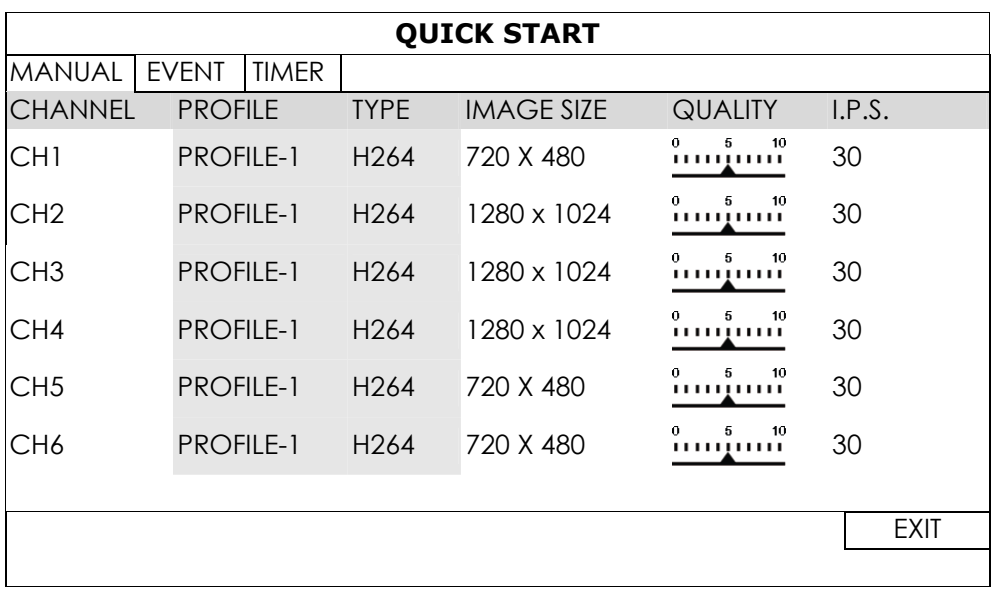
   Select the mouse sensitivity by 10 levels.

5) RECORD CONFIG

   Click "SETUP" to enter the setting page individually for manual record, event record and timer record.

Note: The options selectable for "IMAGE SIZE" and "I.P.S." depends on the camera you're intended to connect.

- MANUAL & TIMER



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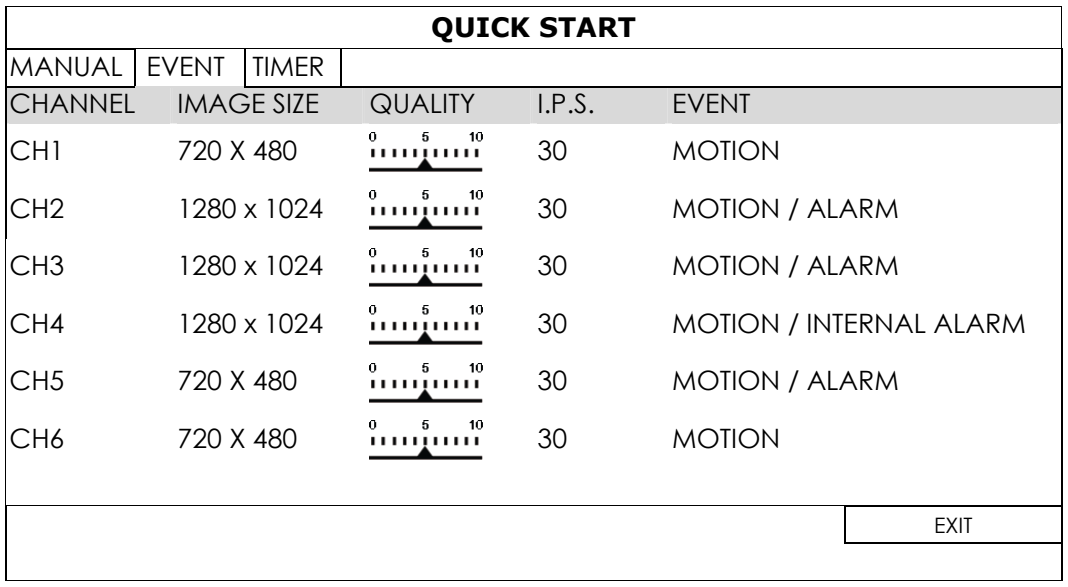
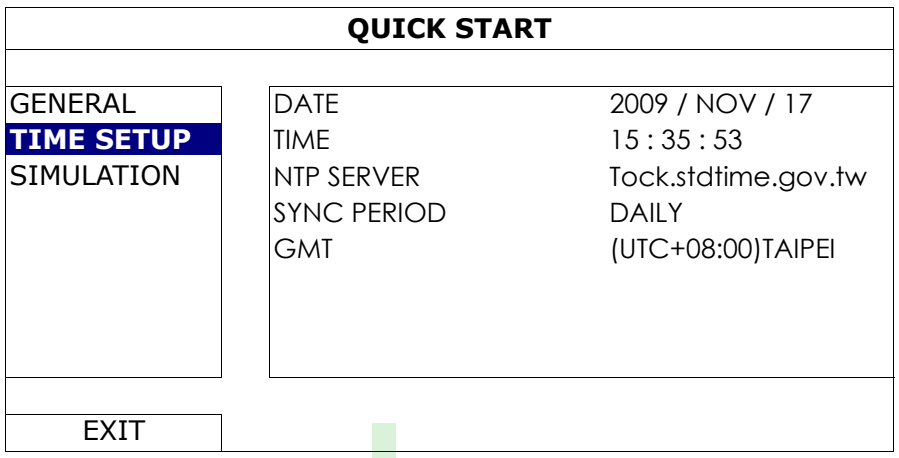
■ EVENT



7.1.2 TIME SETUP



1) DATE

Set the current date. The default display format is YEAR – MONTH – DATE (Y-M-D).

Note: To change the date display format, please refer to "5.2.1 DATE INFO".

2) TIME

Set the current time in HOUR : MIN : SEC.

3) NTP SERVER

Click to change the default NTP server to another server they're familiar with, or keep the default NTP server.

4) SYNC PERIOD

Select to synchronize the NVR time everyday (DAILY), or turn this function off (OFF).

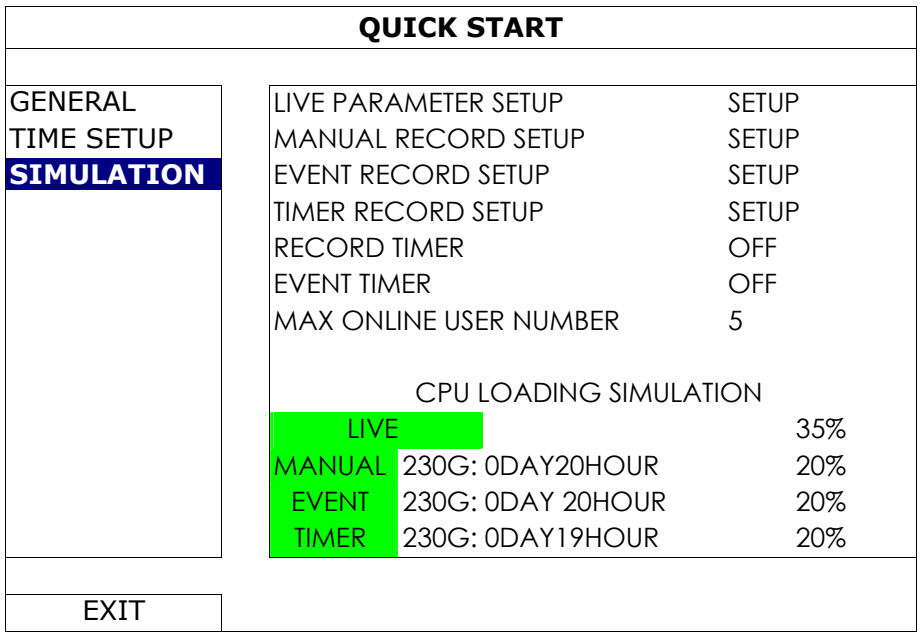
5) GMT

Select your time zone.

alarm shop

7.1.3 SIMULATION

"SIMULATION" is where you can see CPU loading and performance when certain functions are enabled and how the number of online users affects the performance of the device.

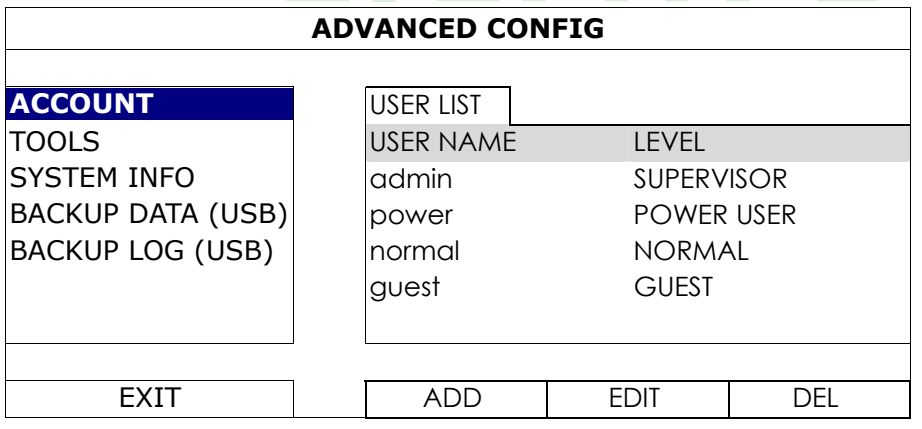


7.2 SYSTEM

7.2.1 ACCOUNT

This function is used to create a new user account, or modify or delete an existing account for different access privilege.

Note: For details about available local operations of each user level, please refer to "5.4 User Level Creation" at page 17.



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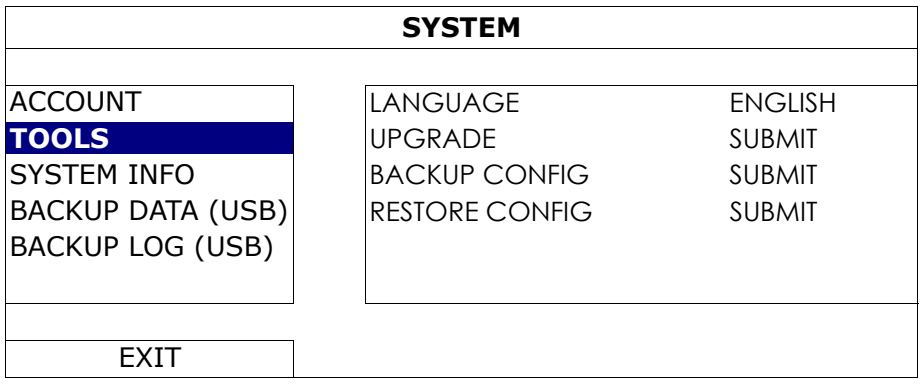
7.2.2 TOOLS



1) LANGUAGE

Select the language of the OSD.

2) UPGRADE

Save the upgrade files obtained from your installer or distributor in a compatible USB flash drive, and insert it into the USB port at the rear panel. Then, click “SUBMIT” to start upgrading.

Note: Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to “APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST” at page 44.

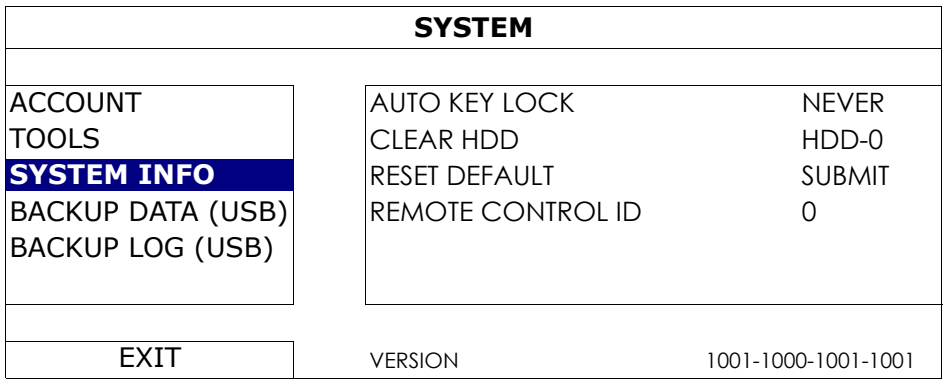
Note: After upgrading firmware, it’s recommended to clear all hard disk data for the system to work more stably. Before clearing all hard disk data, please remember to make video backup.

3) BACKUP CONFIG / RESTORE CONFIG

To keep the current configurations after NVR upgrade, insert a compatible USB flash drive into the USB port, and select “SUBMIT” in “BACKUP CONFIG” to copy the current NVR configurations to a file “System.bin” and save to your USB flash drive.

To restore the NVR configurations, insert the USB flash drive including “System.bin” to the USB port, and select “SUBMIT” in “RESTORE CONFIG”.

7.2.3 SYSTEM INFO



1) AUTO KEY LOCK

Set the time-out in second after which the key lock function is activated (NEVER / 30 / 60 / 120).

2) CLEAR HDD

Select the hard disk you want to clear, and click “YES” to confirm or “NO” to cancel.

It’s recommended to clear all data in the hard disk when:

- It’s the first time to use this NVR to ensure the recorded data are not mixed with other data previously saved in the same hard disk.
- The NVR firmware is upgraded for the system to work more stably. Before clearing all HDD data, please remember to make video backup.
- NVR date and time are changed accidentally when the recording function is activated. Otherwise, the recorded data will be disordered and you will not be able to find the recorded file to backup by time search.

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3) RESET DEFAULT

Click “SUBMIT” to reset all settings as default, and select “YES” to confirm or “NO” to cancel. The NVR will reboot after reset.

7.2.4 BACKUP DATA (USB)

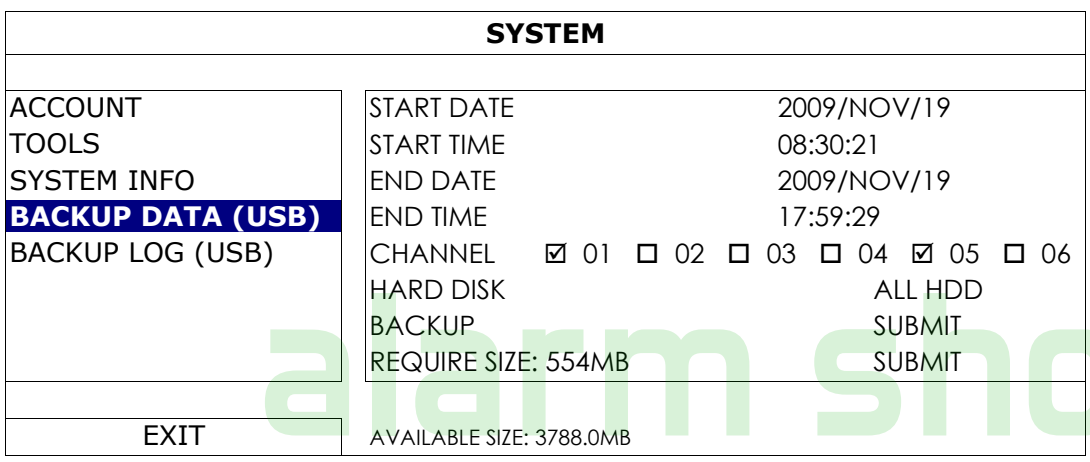
This function is used to copy recorded video data from the NVR hard disk to a USB flash drive.

Insert a compatible USB flash drive to the USB port at the rear panel, and you’re able to start video backup.

Note: Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to “APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST” at page 44.

Note: The backup video can be played on the PC. For details, please refer to “5.8 Video Playback on PC” at page 20.

Note: For video backup, please use USB flash drive or back your data up over the Internet. It’s not recommended to connect the HDD to your PC directly.



1) START DATE / START TIME

Select the start date & time.

2) END DATE / TIME

Select the end date & time.

3) CHANNEL

Click to select the channel(s).

4) HARD DISK

Select the hard disk containing the video data you need or “ALL HDD”.

5) BACKUP

Click “SUBMIT” to start backup.

6) REQUIRE SIZE

To know the size of the expected backup video before backup, click “SUBMIT” to start calculating.

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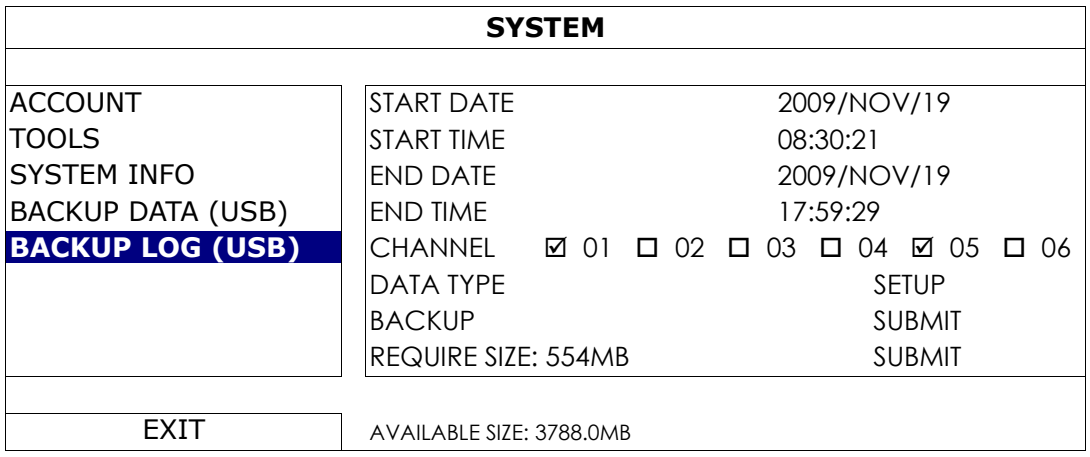
7.2.5 BACKUP LOG (USB)

This function is used to copy the event log list from the NVR to a USB flash drive.

Insert a compatible USB flash drive to the USB port at the rear panel.

Note: Before using the USB flash drive, please use your PC to format the USB flash drive to FAT32 format first. For the list of compatible USB flash drives, please refer to "APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST" at page 44.



1) START DATE / START TIME

   Select the start date & time.

2) END DATE / TIME

   Select the end date & time.

3) CHANNEL

   Click to select the channel(s).

4) DATA TYPE

   Click "SETUP" to select the event type you want: MANUAL / MOTION / ALARM / SYSTEM / TIMER / HUMAN DETECTION, or select "SELECT ALL" to choose all event types.

5) BACKUP

   Click "SUBMIT" to start backup. You'll see a log file (.csv) in the flash drive.

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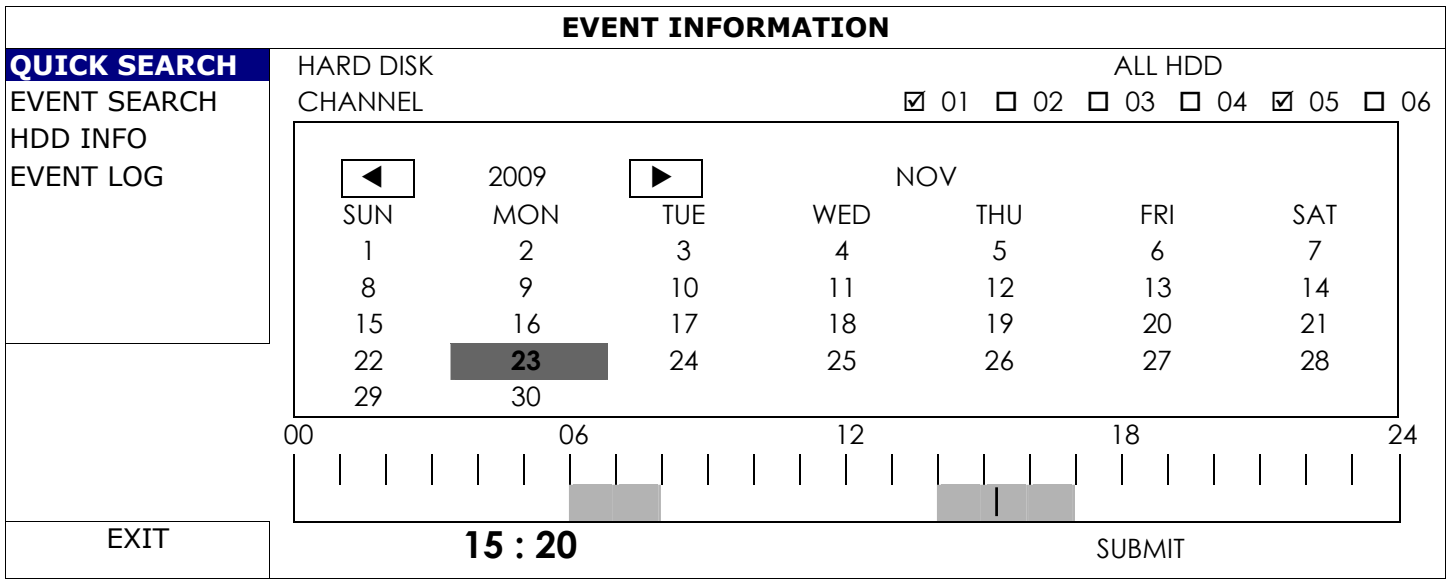
7.3 EVENT INFORMATION

7.3.1 QUICK SEARCH



Step1: Select the hard disk and channel including the video data you want to search.

Step2: Select the month including the video data you want to search from the calendar, and the date with recorded data will be highlighted.

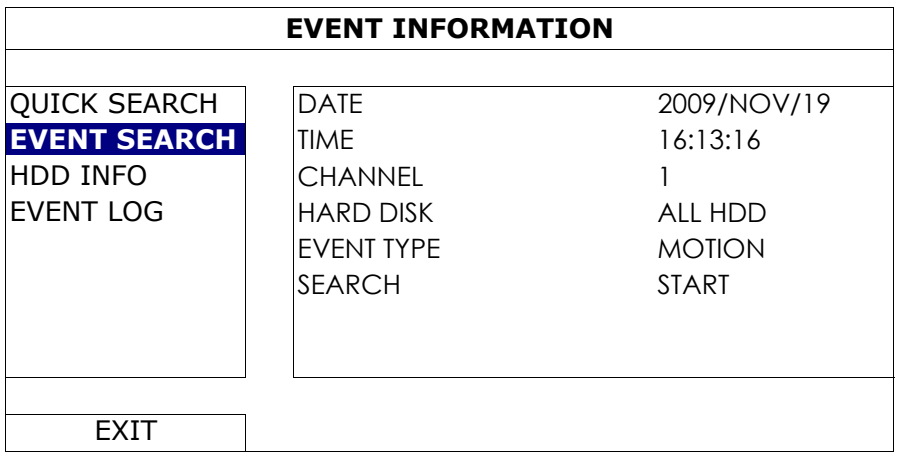
Step3: Select the date you want from the calendar, and the time with recorded data will be highlighted from the time scale bar.

Step4: To immediately play the video clip, click “SUBMIT”.

To choose the start time for video playback, move your mouse cursor to the highlighted time, and click to confirm the time when the time display below is the time you want. The video playback is activated right away when you confirm the time.

Note: For video playback operations, please refer to “4.1.5 Playback Panel” at page 13.

7.3.2 EVENT SEARCH



1) DATE / TIME

Select the specific time period that you want to search.

2) CHANNEL

Select the video channel you want to search.

3) HARD DISK

Select the hard disk including the video data you want to search, or select “ALL HDD”.

4) EVENT TYPE

Select the event type you want to search: MOTION / ALARM / HUMAN DETECTION.

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5) SEARCH

Click “START” to start search and play the video data immediately.

7.3.3 HDD INFO

You can check the information of the connected hard disk(s) in the NVR.

EVENT INFORMATION

QUICK SEARCH
EVENT SEARCH
HDD INFO
EVENT LOG

EXIT

NUMBER	MODEL	Temp.	SIZE	FREE	FORMAT TIME	SERIAL NUMBER	F.W.
HDD-0	ST31000526SV	46	890.562GB	864.832GB	2011/DEC/13 18:18:53	9V0DN5WS	ST31000526SV

7.3.4 EVENT LOG

You can check all the event information (event type, time and channel), or clear all log records.

EVENT INFORMATION

QUICK SEARCH
EVENT SEARCH
HDD INFO
EVENT LOG

EXIT

SYSTEM | BACKUP

EVENT	TIME	COMMENT
KEY UNLOCK	2011/NOV/19 15:49:07	
VIDEO LOSS	2011/NOV/19 15:32:05	04
POWER ON	2011/NOV/19 15:32:02	

PREV NEXT CLEAN

7.4 ADVANCED CONFIG

7.4.1 CONNECTION

To manually assign a channel to connect to the IP camera, select a corresponding “PROTOCOL” from the drop down list first, click “URI” to enter the address of the camera, and enter its port number. There are four protocol types available in the drop down list as follows: “AVTECH”, “ONVIF”, “RTSP OVER HTTP”, and “RTSP OVER UDP”. If you are using AVTECH IP cameras, please select “AVTECH”; otherwise, choose the protocols your cameras support.

ADVANCED CONFIG

CONNECTION
CAMERA
DETECTION
ALERT
NETWORK
DISPLAY
RECORD
NOTIFY

EXIT

CHANNEL	PROTOCOL	URI	PORT	PATH	CONFIG
CH1	AVTECH	://ip_office.ddns.eagleeyes.tw	:80	/	SETUP
CH2	ONVIF	://10.1.1.14	:88	/	SETUP
CH3	RTSP OVER HTTP	://10.1.1.30	:88	/	SETUP
CH4	RTSP OVER UDP	://10.1.1.12	:88	/	SETUP
CH5	AVTECH	://10.1.1.16	:88	/	SETUP
CH6	AVTECH	://10.1.1.13	:88	/	SETUP

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Then, click “SETUP” to enter the access information of the camera:

CONFIG-CH1	
USER NAME	admin
PASSWORD	**********
CACHE TIME (MSEC)	0 5 20
VENDOR	AVTECH
DEVICE	IPCAM (FIXED)
PROFILE	PROFILE-3
TYPE	H264
IMAGE SIZE	720 X 480
QUALITY	0 5 10
I.P.S.	30
AUDIO	ON
	EXIT

Step1: Enter the user name and password to access the IP camera.

Step2: Click “GET TYPE” to detect and make sure the access information you’re intended to connect is correct.

Step3: Select the image size, image quality, and I.P.S.

Note: The options selectable for “IMAGE SIZE” and “I.P.S.” depends on the camera you’re intended to connect.

Step4: (Optional) For the camera with audio recording, select “ON” or “OFF”.

7.4.2 CAMERA

ADVANCED CONFIG

CONNECTION	CH1	CH2	CH3	CH4	CH5	CH6	
CAMERA	BRIGHTNESS						128
DETECTION	CONTRAST						128
ALERT	SATURATION						128
NETWORK	HUE						128
DISPLAY	COV.						OFF
RECORD	REC						ON
NOTIFY	REC AUDIO						ON
	CHANNEL TITLE						EDIT
	PORT FORWARD						81
	PORT FORWARD ENABLE						ON
EXIT							

1) BRIGHTNESS / CONTRAST / SATURATION / HUE

Click the current value to manually adjust the brightness/contrast/saturation/hue of each channel here.

2) COV.

Select if you want to mask the selected channel under recording (ON / OFF). When this function is activated, the wording “COV.” will be shown on the channel screen.

Note: To hide the wording “COV.” when this function is on, go to “DISPLAY”, and set “DISPLAY COVERT” to “OFF”. For details, please refer to “7.4.6 DISPLAY” at page 36.

3) REC

Select if you want to enable recording for the selected channel (ON / OFF).

Note: When this function is disabled, no manual, event or timer recording will be activated even if any of these three record functions is set to “ON”.

4) REC AUDIO

Select if you want to enable audio recording for the selected channel (ON / OFF).

Note: This function is available only when your connected device supports audio recording.

5) CHANNEL TITLE

Click “EDIT” to input the channel title (up to six characters). The default title is the channel number.

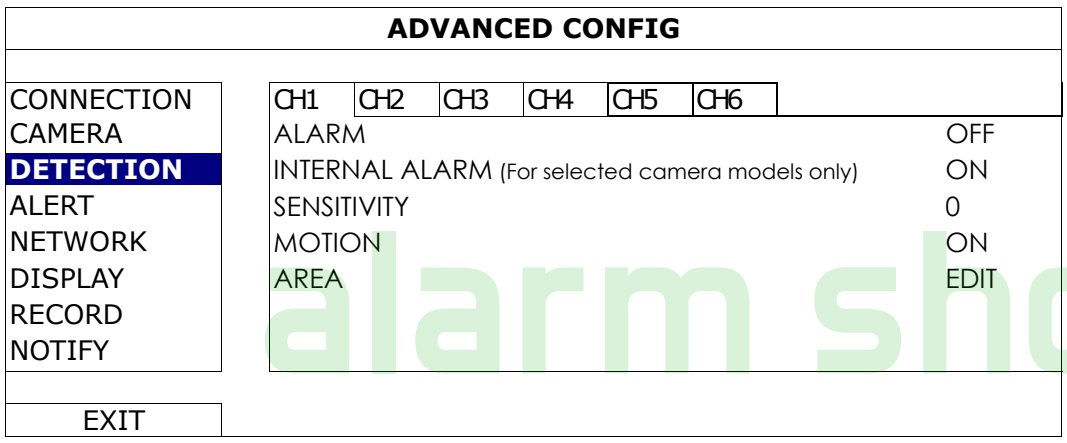
6) PORT FORWARD / PORT FORWARD ENABLE

These two functions are used when you only want to see a single channel of this NVR remotely.

a) Set the port number for the channel in “PORT FORWARD”. The default value for CH1 is 81, and the default value for CH2 is 82… etc. If you want to change the port number to other value, the range is from 1 ~ 65535.
b) Select “ON” in “PORT FORWARD ENABLE”.
c) The address of the channel will be “http://*NVR_address*:*port_number*”. Enter the address in Internet Explorer, and see if you can access the device connected channel individually.

Note: The user name and password are still required to access the device connected to the channel. Make sure you know the user name and password to access the device. For details, please refer to its user manual.

7.4.3 DETECTION



1) ALARM

Select N.C./ N.O depending on your installation need. The default alarm value is OFF.

2) INTERNAL ALARM *(For selected camera models only)*

This function appears only when the camera connected supports human detection.
Select “ON” to enable human detection, or “OFF” to disable it.

3) SENSITIVITY

Select the detection sensitivity of the selected channel, the lower the value, the higher the sensitivity.

4) MOTION

Select if you want to activate the motion detection function for the selected channel (ON/OFF).

5) AREA

Click “EDIT” to set the motion detection area.
There are 16 × 12 grids per camera for all channels. Pink blocks represent the area that is not being detected while the transparent blocks are the area under detection.

Note: To exit area setting and return to the detection page, right click your mouse.

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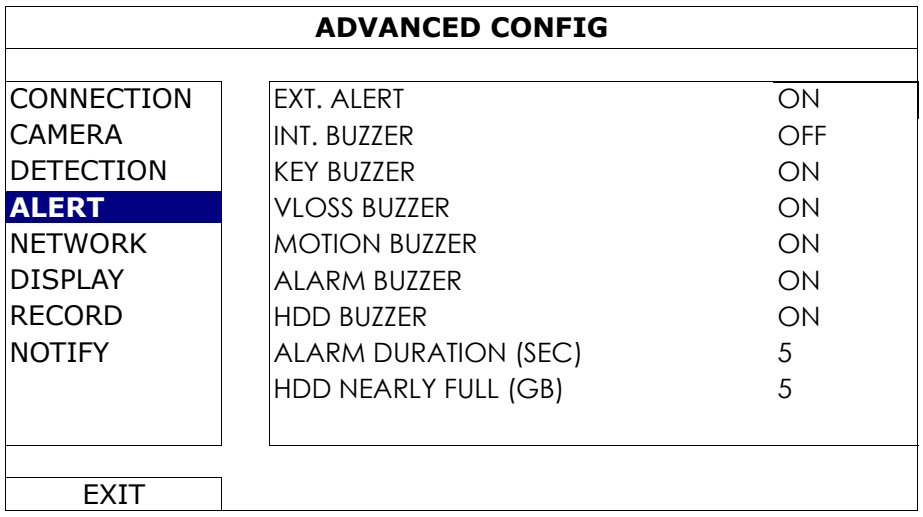
7.4.4 ALERT



1) EXT. ALERT

   Select to enable or disable the sound when any external alarm is triggered (ON / OFF).

2) INT. BUZZER

   Select to enable or disable the sound (ON / OFF) for all internal buzzers: KEY BUZZER, VLOSS BUZZER, MOTION BUZZER, ALARM BUZZER, and HDD BUZZER.

Note: When this item is set to "OFF", item 3) to item 7) will be disabled even though they are set to ON.

3) KEY BUZZER

   Select to enable or disable the sound when pressing the buttons on the front panel (ON / OFF).

4) VLOSS BUZZER

   Select to enable or disable the sound when video loss happened (ON / OFF).

5) MOTION BUZZER

   Select to enable or disable the sound when any motion alarm is triggered (ON / OFF).

6) ALARM BUZZER

   Select to enable or disable the sound when any internal alarm is triggered (ON / OFF).

7) HDD BUZZER

   Select to enable or disable the sound (ON / OFF) when the HDD remaining capacity reaches to the value set in "HDD NEARLY FULL (GB)".

8) ALARM DURATION (SEC)

   Select the duration time for alarm buzzer in second (5 / 10 / 20 / 40).

9) HDD NEARLY FULL (GB)

   If HDD BUZZER is enabled, select the duration time for buzzer notifications when the hard disk available capacity is 5/10/15/20 GB left.

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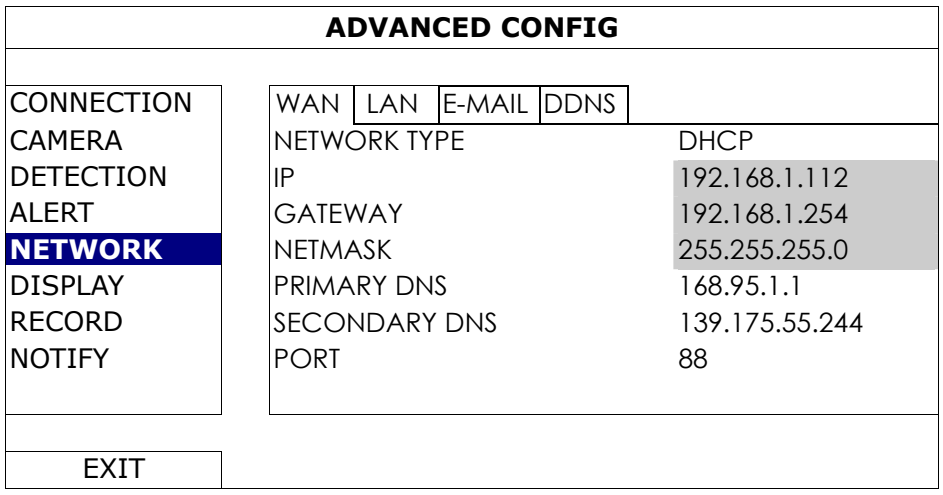
7.4.5 NETWORK

There are two RJ45 ports on the NVR rear panel: WAN and LAN.

- ***WAN*** is used to connect this NVR to Internet for remote access from anywhere as long as Internet access is available.
- ***LAN*** is used to connect to IP cameras locally.
- ***DDNS*** is used when the Internet access is available.

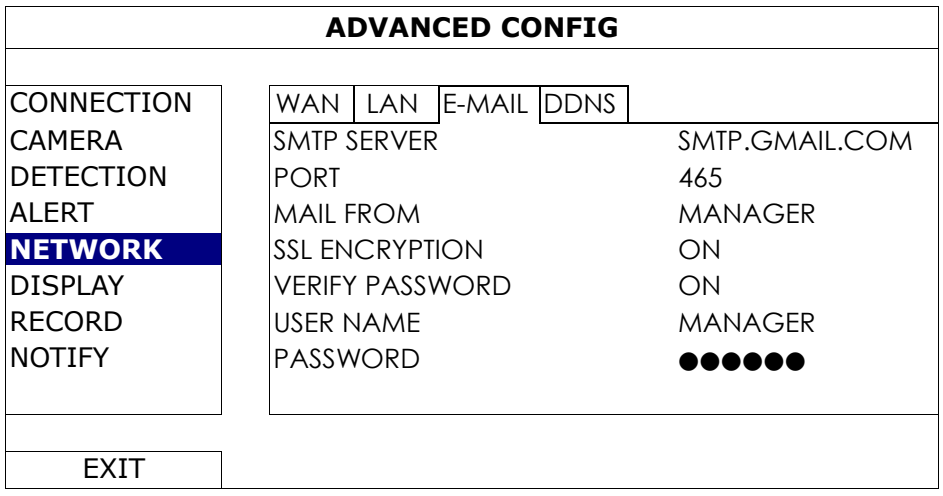
Note: For more details about these three functions and network configurations, please refer to "3. NETWORK CONFIGURATIONS" at page 8.



E-MAIL

Configure your E-mail account here to send event notifications to the E-mail address(es) specified in "NOTIFY".

Note: To know the SMTP server and port number you should use, please check with your E-mail service provider.



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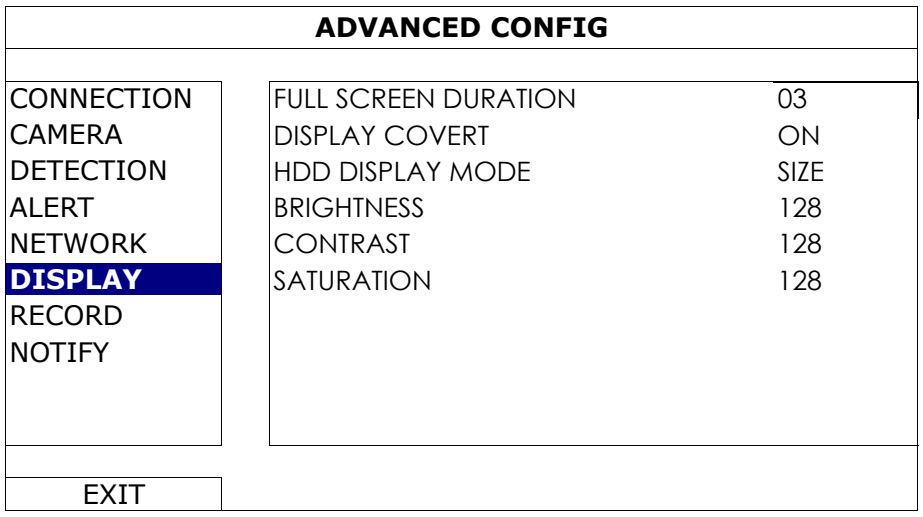
7.4.6 DISPLAY



1) FULL SCREEN DURATION

   Select the full screen dwell duration time in second (03 / 05 / 10 / 15).

2) DISPLAY COVERT

   Select “ON” or “OFF” to display or hide the wording “COV.” when covert recording is activated in “CAMERA”.

3) HDD DISPLAY MODE

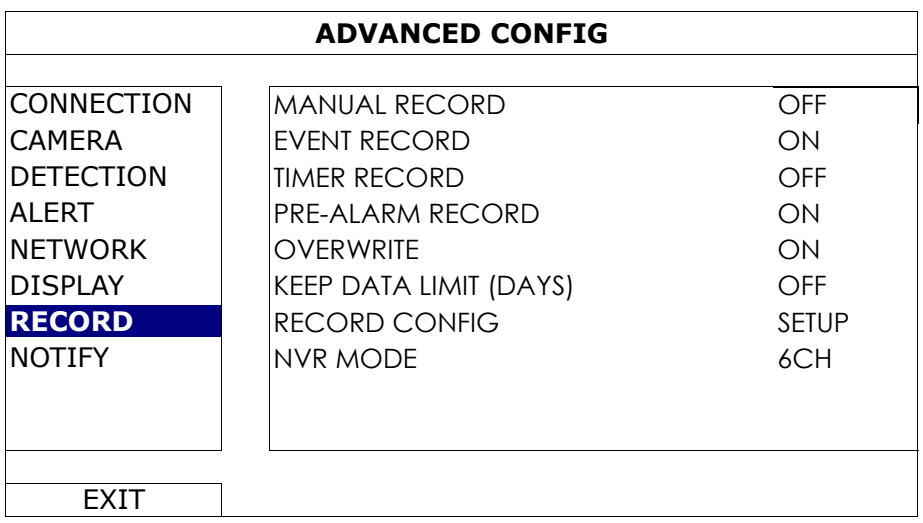
   Select “SIZE” to show the remaining hard disk capacity for recording in GB, or “TIME” to show the remaining recording time.

4) BRIGHTNESS / CONTRAST / SATURATION

   Click the current value to manually adjust the brightness/contrast/saturation/ of the screen.

7.4.7 RECORD

Note: Please DO NOT change the date or time of your NVR after the recording function is activated. Otherwise, the recorded data will be disordered and you will not be able to find the recorded file to backup by time search. If users change the date or time accidentally when the recording function is activated, it’s recommended to clear all hard disk data, and start recording again.



1) MANUAL RECORD

   Set the manual recording function on / off.

2) EVENT RECORD

   Set the event recording function on / off.

3) TIMER RECORD

   Set the timer recording function on / off.

4) PRE-ALARM RECORD

Select to enable or disable the pre-alarm function (ON / OFF).
When pre-alarm and event recording functions are both activated, the NVR will record 8MB data before an alarm / motion event is triggered.

5) OVERWRITE

Select “ON” to overwrite previous recorded data in your HDD when the HDD is full. When this function is on and the HDD is full, the NVR will clear 8GB data from the oldest for continuous recording without notice.

6) KEEP DATA LIMITS (DAYS)

Assign the maximum recording days from 01 to 31 after which all the recorded data will be removed, or select “OFF” to disable this function.

7) RECORD CONFIG

Click “SETUP” to enter the setting page individually for manual record, event record and timer record.
For details, please refer to “7.1.1 GENERAL” at page 24.

8) NVR MODE

Set the NVR to 6CH mode or 12CH mode, depending on your surveillance demands.

Note: Every time you change the mode, NVR will reboot automatically.

7.4.8 NOTIFY

You can configure this NVR to send notifications for certain events to mobile devices with our mobile app, EagleEyes, installed, or to the specified E-mail address(es).

PUSH VIDEO

Before using this function, make sure:

- The camera connected to this NVR is our ETS network camera series.
- You have iPhone, iPad, or Android mobile phone or tablet.
- You have subscribed the mobile network service from your mobile service provider.
- The mobile app, EagleEyes, is installed in your mobile device. For details, please refer to “APPENDIX 1 MOBILE SURVEILLANCE VIA EAGLEEYES” at page 41.
- You have configured EagleEyes to access this NVR, and Push Video is enabled. For details, please refer to “APPENDIX 1 MOBILE SURVEILLANCE VIA EAGLEEYES” at page 41.

You’ll get an active event notification with video telling you the occurrence of alarm event(s).

ADVANCED CONFIG

CONNECTION
CAMERA
DETECTION
ALERT
NETWORK
DISPLAY
RECORD
NOTIFY

EXIT

PUSH VIDEO	PUSH MESSAGE	MESSAGE MAIL	VIDEO MAIL
GUARD			ON
CH01		ALARM N.C.	CH1 alarm
CH02		ALARM N.O.	CH2
CH03		ALARM OFF	CH3
CH04		ALARM OFF	CH4
CH05		ALARM OFF	CH5
CH06		ALARM OFF	CH6

Step1: Switch “GUARD” to “ON”.

Step2: Select the channel number with our ETS network camera connected, and select the alarm type to “ALARM N.C.” or “ALARM N.O.”

Step3: Customize the notification message you want to see after alarm type setting, or keep the default message, which shows only the channel numbering.

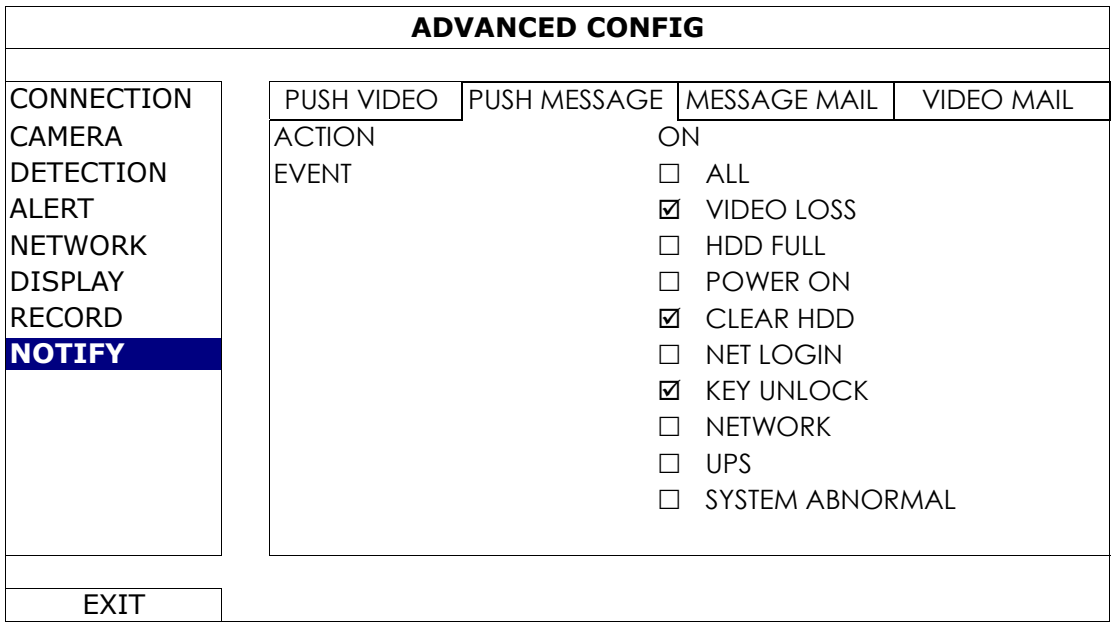
Step4: Enable “Push Video” in EagleEyes on your mobile device, and try to trigger an alarm event to see if you’ll get pushed.

PUSH MESSAGE

Before using this function, make sure:

- You have iPhone, iPad, or Android mobile phone or tablet.
- You have subscribed the mobile network service from your mobile service provider.
- The mobile app, EagleEyes, is installed in your mobile device. For details, please refer to “APPENDIX 1 MOBILE SURVEILLANCE VIA EAGLEEYES” at page 41.
- You have configured EagleEyes to access this NVR, and Push Video is enabled. For details, please refer to “APPENDIX 1 MOBILE SURVEILLANCE VIA EAGLEEYES” at page 41.

You’ll get a text message telling you the occurrence of selected system event(s).



Step1: Switch “ACTION” to “ON”.

Step2: Select the system event(s) you want to get notified via your mobile device.

Step3: Enable “Push Video” in EagleEyes on your mobile device, and try to trigger an alarm event to see if you’ll get pushed.

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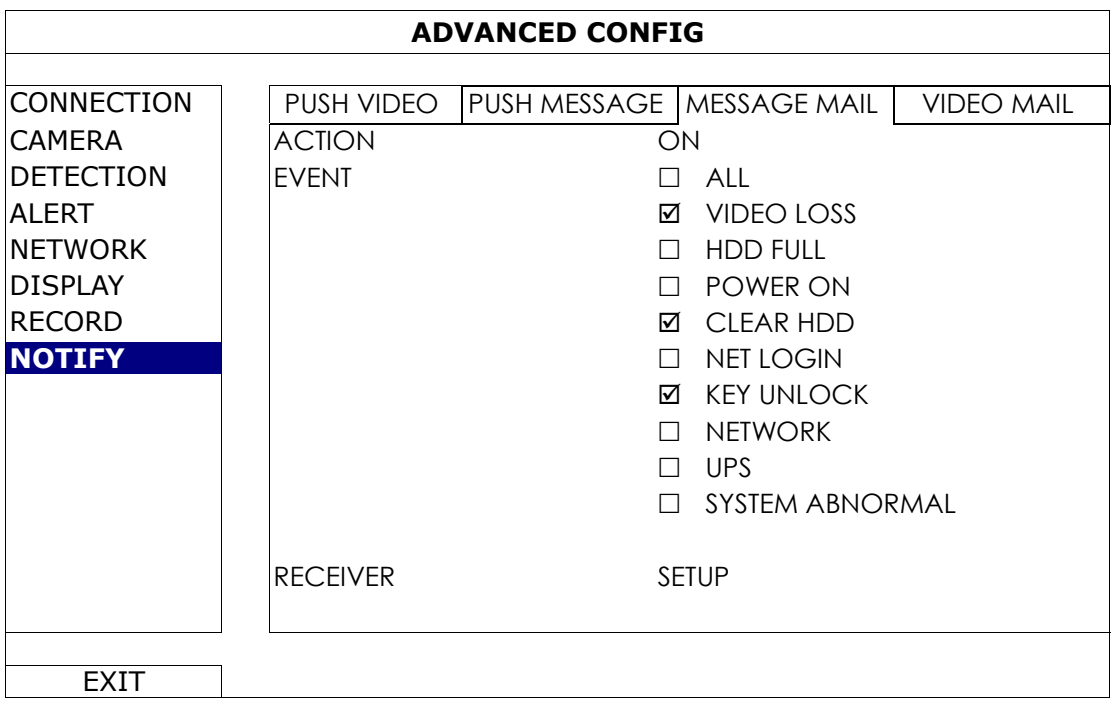
MESSAGE MAIL

Note: For E-mail notifications, make sure you have configured an E-mail account in “NETWORK” → “E-MAIL” to send the notifications.

Enable this function in “ACTION”, select the event type(s) you want to send notifications in “EVENT”, and add the E-mail address(es) to which you want to send notifications in “RECEIVER”.

You’ll get an E-mail telling you the occurrence of your selected event(s).

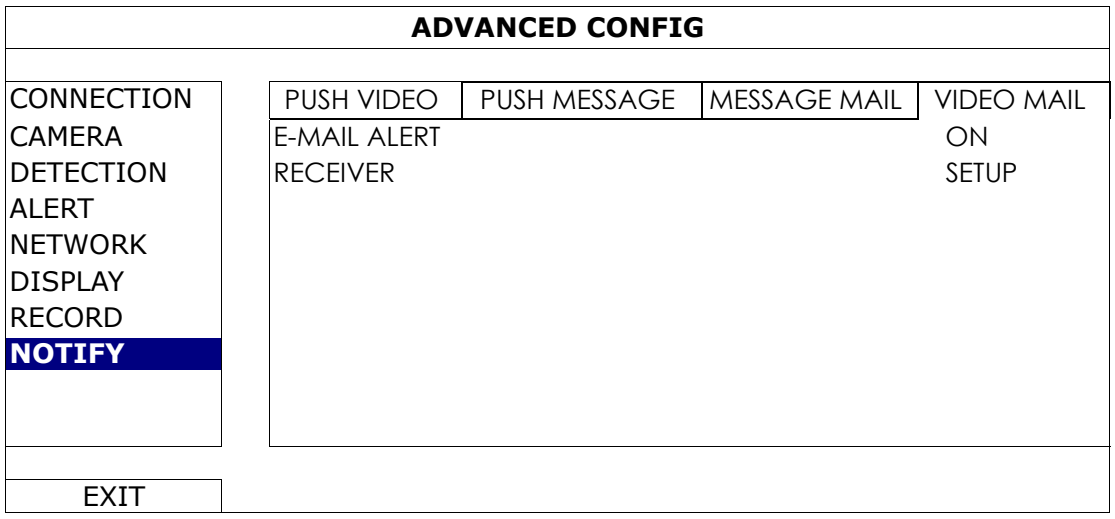


VIDEO MAIL

Note: For E-mail notifications, make sure you have configured an E-mail account in "NETWORK" → "E-MAIL" to send the notifications.

Enable this function in "E-MAIL ALERT", and add the E-mail address(es) to which you want to send notifications in "RECEIVER".

You'll get an E-mail telling you the occurrence of motion events attached with a html file.



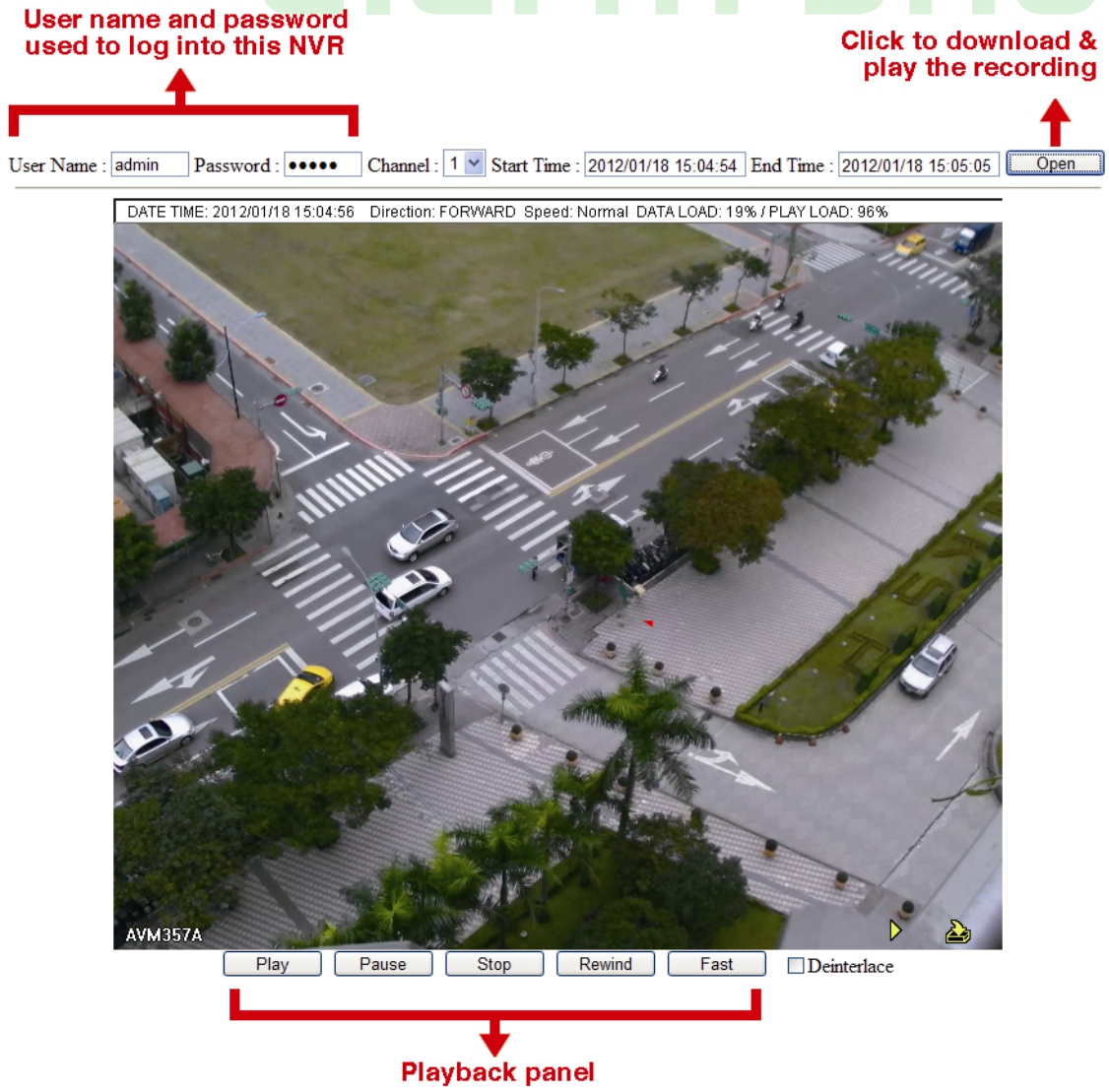
How to check video recording

Step1: Open the html file attached.

Note: Please accept to install ActiveX control on your computer.

Step2: Enter the user name and password to log into this NVR, and select the channel you want.

Step3: Click "Open" to download the motion recording to your computer and start playing.



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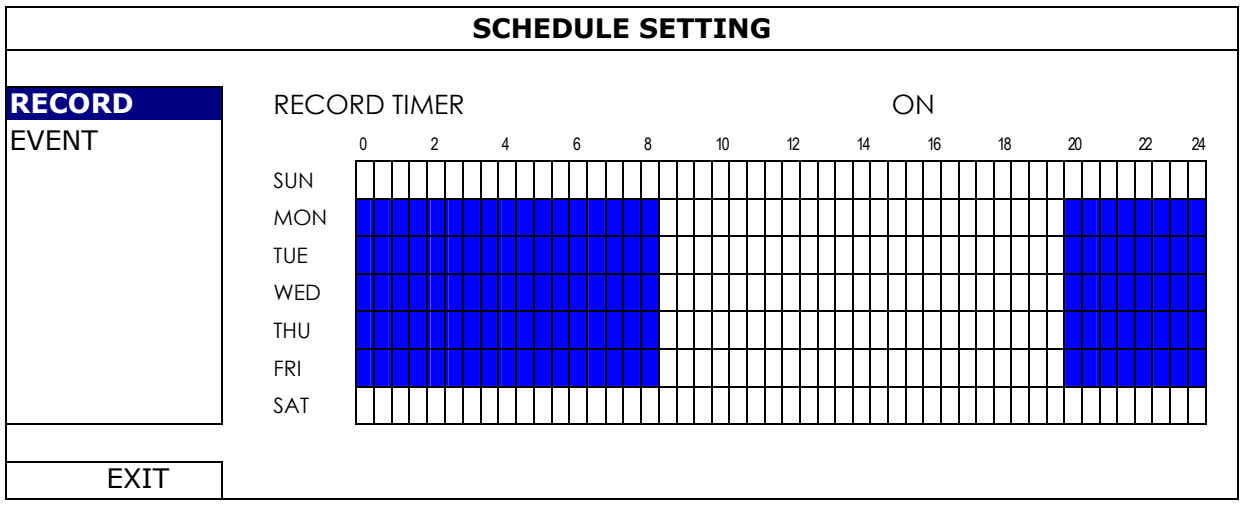
7.5 SCHEDULE SETTING

7.5.1 RECORD

Select “ON” to enable record timer, and select the day and time for this function.

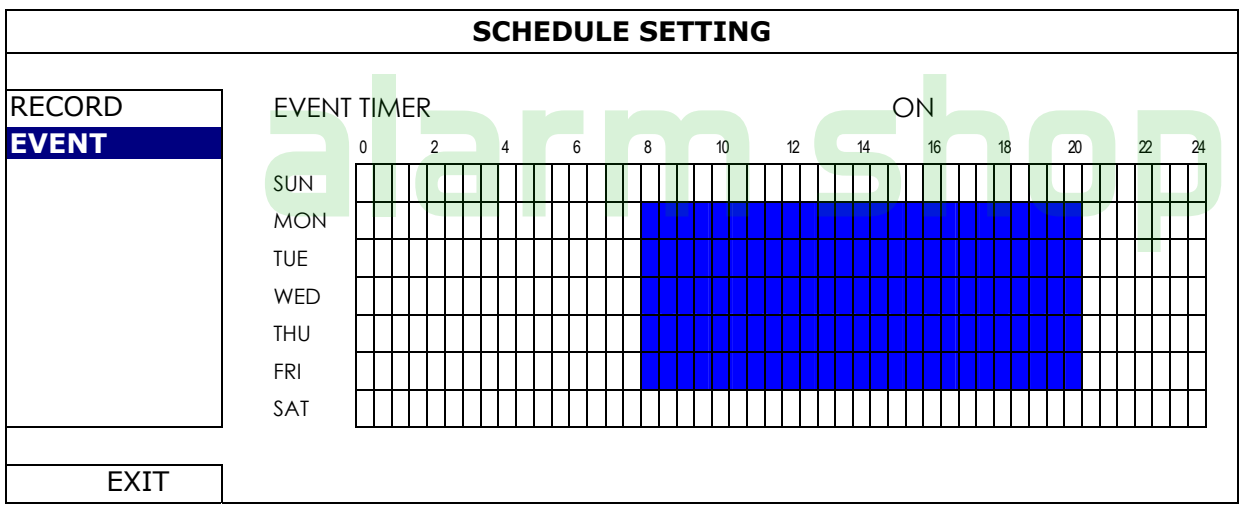


X axis: 0 ~ 24 hours. Each time bar is 30 minutes.

Y axis: Monday ~ Sunday.

7.5.2 EVENT

Select “ON” to enable event timer, and select the day and time for this function.



X axis: 0 ~ 24 hours. Each time bar is 30 minutes.

Y axis: Monday ~ Sunday.

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APPENDIX 1 MOBILE SURVEILLANCE VIA EAGLEEYES

EagleEyes is a mobile phone program used with our surveillance system for remote surveillance. It has several advantages:

- It's free (Except *EagleEyes Plus* for iPhone, *EagleEyes Plus+* for Android, and *EagleEyesHD Plus* for iPad).
- It's compatible with several popular mobile platforms, such as iPhone, iPad and Android.

It's easy to download, install and configure. For more details about configuring and operating this program, please visit our official website www.avtech.com.tw/ee_about.aspx.

A1.1 Prerequisites

Before installing EagleEyes to your mobile phone for remote surveillance, make sure you have checked the following:

- ✓ Your mobile platform is iPhone, iPad & Android.
- ✓ Mobile Internet services are subscribed and available to use for your mobile phone.

Note: You might be charged for Internet access via wireless or 3G networks. For the Internet access rate details, please check with your local network operator or service provider.

- ✓ You have noted down the IP address, port number, user name and password used to access your network camera from Internet.

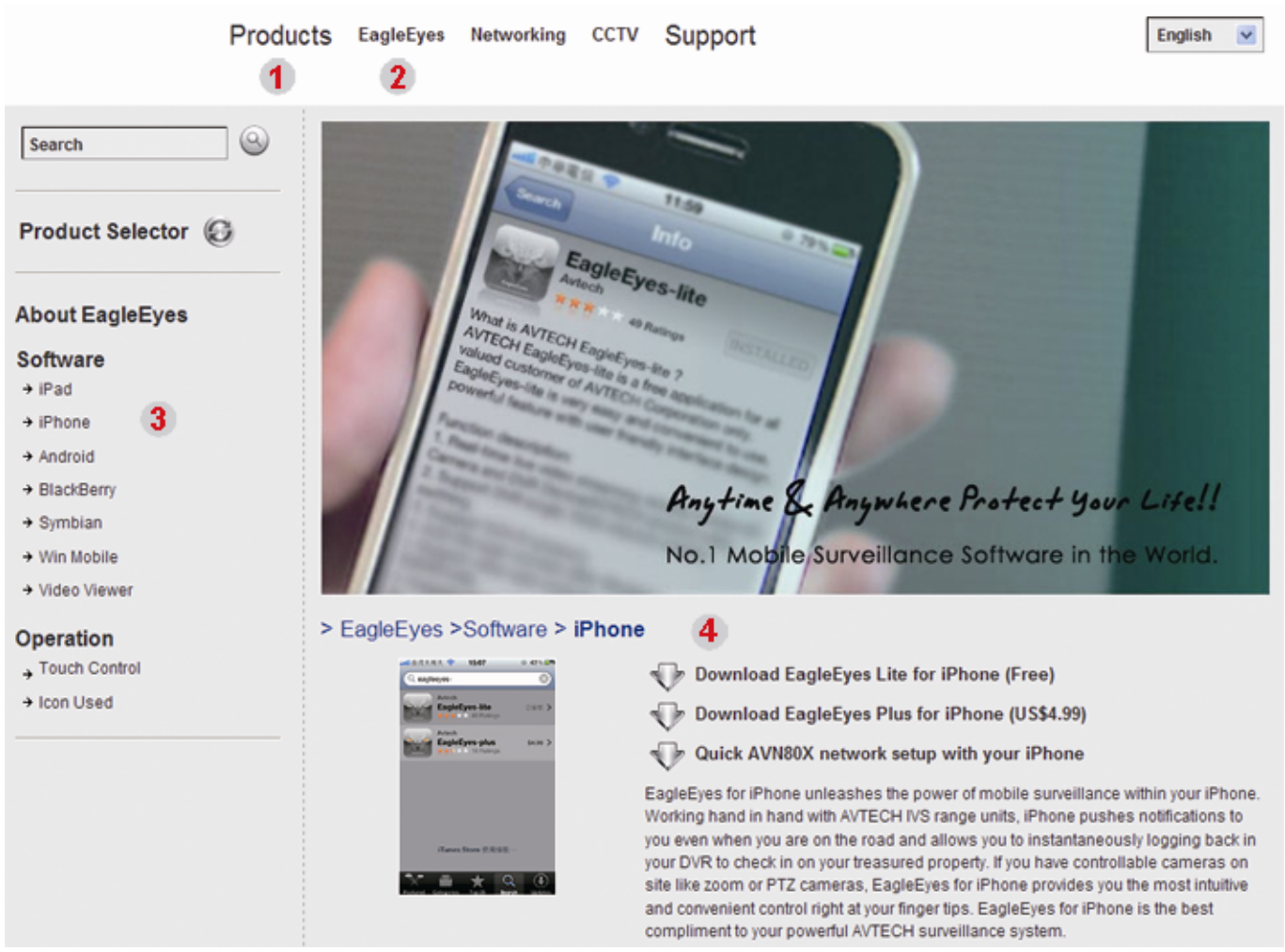
A1.2 Where to download

Connect to www.avtech.com.tw from your mobile device.

Note: Please **DO NOT** download EagleEyes from your computer.

Select "Products" → "EagleEyes" to enter EagleEyes introduction page.

Then, select the mobile platform type you're using in "Software", and download the program you need.


Products
EagleEyes
Networking
CCTV
Support
English
1
2
Search
Product Selector
About EagleEyes
Software
iPad
iPhone
Android
BlackBerry
Symbian
Win Mobile
Video Viewer
3
Operation
Touch Control
Icon Used
Anytime & Anywhere Protect Your Life!!
No.1 Mobile Surveillance Software in the World.
> EagleEyes >Software > iPhone
4
Download EagleEyes Lite for iPhone (Free)
Download EagleEyes Plus for iPhone (US$4.99)
Quick AVN80X network setup with your iPhone
EagleEyes for iPhone unleashes the power of mobile surveillance within your iPhone. Working hand in hand with AVTECH IVS range units, iPhone pushes notifications to you even when you are on the road and allows you to instantaneously logging back in your DVR to check in on your treasured property. If you have controllable cameras on site like zoom or PTZ cameras, EagleEyes for iPhone provides you the most intuitive and convenient control right at your finger tips. EagleEyes for iPhone is the best compliment to your powerful AVTECH surveillance system.

- For Android & iPad, select the download link from the website to start downloading.
- For iPhone, two versions of EagleEyes are available:
  -- EagleEyes Plus (US$4.99), and
  -- EagleEyes Lite (Free).
  Select the version you want, and you'll be directed to "App Store" to download the application.

Note: You can also find *EagleEyes* on "App Store" from your iPhone. Go to "App Store", and select "Search". Enter the keyword "eagleeyes" to find and download the version you want.

When the download is completed, *EagleEyes* will be installed automatically to the location where all applications are saved in your phone by default, or where you specify.

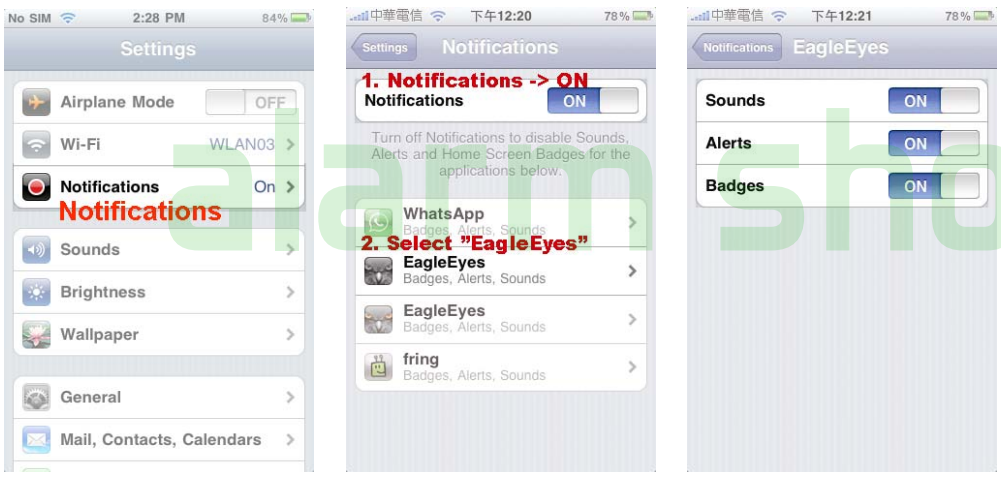
Note: For more details about configuring this program, scroll down the download page to see related instructions.

A1.3 Enable Push Video

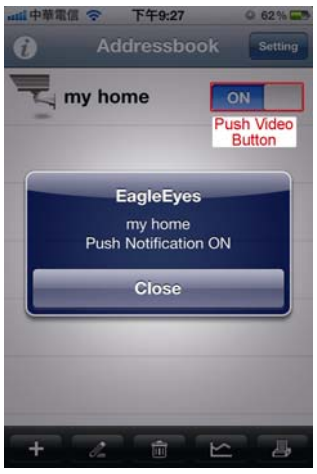
Note: This function is available only for iPhone, iPad, and Android mobile devices (except for HTC mobile devices).

A1.3.1 From iPhone / iPad

Step1: In the iPhone / iPad main menu, select "Settings" → "Notifications".
-- Make sure "Notifications" is set to "ON".
-- Select "EagleEyes", and make sure its settings are set to "ON".



Step2: Open "EagleEyes", and switch the Push Video button to "ON". You'll receive the message indicating that Push Notification (Push Video) is on.



A1.3.2 From Android Mobile Device

In the address book, switch “Guard” from “OFF” to “ON”.

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APPENDIX 2 COMPATIBLE USB FLASH DRIVE LIST

Please upgrade the firmware of the NVR to the latest version to ensure the accuracy of the following table. If the USB flash drive is not supported by the NVR, you will see on the screen.

Note: Please use your PC to format the USB flash drive as "FAT32".

Note: You can backup up to 2GB video data for one-time USB backup. To backup more data, please set the time & channel(s) you want, and start USB backup again.

MANUFACTURER	MODEL	CAPACITY
Transcend	JFV35	4GB
	JFV30	8GB
Kingston	DataTraveler	1GB
PQI	U172P	4GB
Apacer	AH320	2GB
	AH320A	8GB
	AH220	1GB
	AH320	4GB
A-data	RB-18	1GB
Sandisk	Cruzer Micro	2GB
	Cruzer Micro	4GB
	Cruzer4-pk	2GB
Netac	U208	1GB
MSI	F200	4GB
SONY	Micro Vault Tiny 2GB	2GB
	Micro Vault Tiny 4GB	4GB
	Micro Vault Tiny	1GB

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APPENDIX 3 COMPATIBLE HARD DISK LIST

Please upgrade the firmware of the device to the latest version to ensure the accuracy of the following table.

- **3.5” hard disk**

MANUFACTURER	MODEL	CAPACITY	ROTATION
Seagate	ST250DN000	250GB	7200 rpm
	ST3320613AS	320GB	7200 rpm
	ST33500320AS	500GB	7200 rpm
	ST3500410SV	500GB	7200 rpm
	ST3750330AS	750GB	7200 rpm
	ST31000525SV	1000GB	7200 rpm
	ST31000340AS	1000GB	7200 rpm
	ST2000DM001	2TB	7200 rpm
	ST2000VX000	2TB	7200 rpm
	ST3000VX000	3TB	7200 rpm
WD	WD2500AAKX	250GB	7200 rpm
	WD2500AAKX	250GB	7200 rpm
	WD3200AAKS	320GB	7200 rpm
	WD5000AACS	500GB	7200 rpm
	WD5000AZRX	500GB	7200 rpm
	WD6400AAKS	640GB	7200 rpm
	WD7500AAKS	750GB	7200 rpm
	WD10EADS	1TB	7200 rpm
	WD10EALX	1TB	7200 rpm
	WD15EADS	1.5TB	7200 rpm
	WD20EADS	2TB	7200 rpm
	WD20EURS	2TB	7200 rpm
	WD2002FAEX	2TB	7200 rpm
	WD20EARS	2TB	7200 rpm
Maxtor	STM3500320AS	500GB	7200 rpm
	STM3750330AS	750GB	7200 rpm
HITACHI	HDT725032VLA360	320GB	7200 rpm
	HDS7211050DLE630	500GB	7200 rpm
	HDS721010KLA330	1000GB	7200 rpm
	HDS723020BLA642	2TB	7200 rpm

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- **2.5” hard disk**

MANUFACTURER	MODEL	CAPACITY	ROTATION
WD	WD500BUCT	500GB	7200 rpm
	WD10JUCT	1TB	7200 rpm
HITACHI	HTS727550A9E364	500GB	7200 rpm
Seagate	ST9750420AS	750GB	7200 rpm

Note: It’s not recommended to use a green HDD with your NVR to make sure it works properly.

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APPENDIX 4 BATTERY REPLACEMENT

The time reset after power failure, for example, caused by a power outage, will cause the disorder of the recorded data, and users may have problems in searching the event clip they want. To keep the device time from resetting, a non-chargeable lithium battery, *CR2032*, is installed in the device.

However, the device time might still get reset when the battery is low or even running out of power. If so, please replace the device battery, CR2032, **right away** as instructed below.

➢ **How to replace CR2032**

Note: The lithium battery, CR2032, is a non-chargeable battery, and should be purchased separately. Please replace only with the same or equivalent type battery in case of danger.

Step1: Stop all recording **immediately** to prevent the disorder of the recorded data. Then, back up the recorded data if necessary.

Step2: Power off the device, and disconnect the power.

Step3: Remove the device cover, and find the battery on the mainboard.

Step4: Push the release as indicated below to remove the battery.

Type1

Type 2

Step5: Get a new battery and install it to its slot on the mainboard.

- For Type 1, install it with the side of “CR2032” facing up as shown above.
- For Type 2, install it without the side of “CR2032” facing you as shown above.

Step6: Replace the cover and connect to power.

Step7: Set the date & time, and resume recording.

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APPENDIX 5 SPECIFICATIONS

Hardware		
Video Input		One LAN port Up to 6 Channels with a 6-port hub
Video Output		HDMI
Video Output Resolution		1920 x 1080
Audio Output		YES (Line Out / HDMI)
HDD Storage**		1 HDD
eSATA		YES
USB Ports		Two on the rear panel: one for video backup to USB flash drive, and another for NVR control via a USB mouse
IR Remote Control		YES
Ethernet	LAN port	1000Mbps
	Internet port	10Mbps / 100Mbps
Software		
Video Compression Format		H.264
Local / Remote Display Mode		6 / 12CH
Local / Remote Playback Mode		6CH
Recording Mode		Manual / Event / Alarm / Schedule
Recording Throughput****	12CH Mode	Up to 360 IPS @ 720 x 480, 32 Mbps Up to 120 IPS @ 1280 x 720, 32 Mbps ** Recording @ 1280 x 1024 or higher is only allowed for CH1*
	6CH Mode	Up to 180 IPS @ 720 x 480, 32 Mbps Up to 180 IPS @ 1280 x 720, 32 Mbps Up to 90 IPS @ 1920 x 1080, 32 Mbps
Pre-alarm Recording		YES
Quick Search		Time / Motion / Alarm
Security		Multiple user access levels with password
Remote Access		(1) Internet Explorer on Windows operating system (2) EagleEyes on iPhone, iPad & Android mobile devices (3) Our self-developed program, Video Viewer
Event Notification		Push Message / Push Video
General		
Power Source (±10%)		DC12V / 3A
Power Consumption		< 9.5W (without a hard disk installed)
Operating Temperature		10℃ ~ 40℃ (50℉~104℉)
Dimensions (mm)**		197(W) × 36(H) × 197(D)
Minimum PC Browsing Requirements		• Pentium 4 CPU 1.3 GHz or higher, or equivalent AMD • 256 MB RAM • AGP graphics card, Direct Draw, 32MB RAM • Windows 7, Vista & XP, DirectX 9.0 or later • Internet Explorer 7.x or later
Peripherals		(1) EoC converter (2) HDMI Extender (3) Video Server

* Specifications are subject to change without notice.

** Dimensional tolerance: ±5mm

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APPENDIX 6 RECORDING TIME TABLE

Below shows the estimated total recording time of NVR with different recording resolutions.

The recording time per resolution is the average value collected from the both recording conditions indicated in “Testing Environment”, and is for reference only.

The time may vary depending on the resolution, image quality & frame rate you choose, the complexity of your monitoring area, and how often the moving objects show in your monitoring area.

Testing Environment

- Place: Entrance
- Monitoring area: 1.5 meters away from the camera
- Recording conditions:

  (1) No one walks by the monitoring area.

  (2) One or two persons walk by the monitoring area.

Static: No one coming in and out	*Dynamic: One or two people coming in and out*

Recording Time Table

The estimated total number of recording days of A NVR with 1TB HDD at different recording resolutions.

Recording conditions	Static		Dynamic	
	Per CH / average bit rate	Recording time / 6CH*	Per CH / average bit rate	Recording time / 6CH*
720P recording	2100kbps	7.66	3200kbps	5.03
D1 / VGA recording	420kbps	39.91	800kbps	19.29
CIF / QVGA recording	210kbps	82.67	400kbps	38.58

* Real-time recording at 30 IPS on 6 channels simultaneously.

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